HOPPE – Handle of excellence.
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## Types of keyhole and distances

Sets supplied by HOPPE come with the following technical specification, unless ordered otherwise.

<table>
<thead>
<tr>
<th>Sets for ...</th>
<th>Keyhole</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile doors</td>
<td>PZ (profile cylinder)</td>
<td>Distance between centre of lock follower and centre of profile cylinder hole Standard: <strong>92 mm</strong></td>
</tr>
<tr>
<td>Entrance doors</td>
<td>PZ (profile cylinder)</td>
<td>Distance between centre of lock follower and centre of profile cylinder hole Standard: <strong>92 mm</strong></td>
</tr>
<tr>
<td>Interior doors</td>
<td>BB (standard keyhole)</td>
<td>Distance between centre of lock follower and centre of keyhole Standard: <strong>72 mm or 90 mm</strong></td>
</tr>
<tr>
<td></td>
<td>OB (oval standard keyhole)</td>
<td>Distance between centre of lock follower and centre of keyhole Standard: <strong>70 mm or 90 mm</strong></td>
</tr>
<tr>
<td></td>
<td>PZ (profile cylinder)</td>
<td>Distance between centre of lock follower and centre of keyhole Standard: <strong>90 mm</strong></td>
</tr>
<tr>
<td>Privacy doors</td>
<td>SK/OL (external: slotted head/ internal: turn button)</td>
<td>Distance between centre of lock follower and centre of privacy spindle Standard: <strong>90 mm</strong></td>
</tr>
<tr>
<td>Fire doors</td>
<td>PZ (profile cylinder)</td>
<td>Distance between centre of lock follower and centre of profile cylinder hole Standard: <strong>72 mm</strong></td>
</tr>
<tr>
<td>Lift/slide doors</td>
<td>PZ (profile cylinder)</td>
<td>Distance between centre of lock follower and centre of profile cylinder hole Standard: <strong>69 mm</strong></td>
</tr>
<tr>
<td>French doors</td>
<td>PZ (profile cylinder)</td>
<td>-</td>
</tr>
<tr>
<td>Windows</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
## Brand, special and product attributes of the “HOPPE – Handle of excellence.” brand, certification marks

Regarding the “HOPPE – Handle of excellence.” brand product, the following product features are distinguished:

<table>
<thead>
<tr>
<th>Denomination</th>
<th>Description</th>
<th>Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brand attributes</strong></td>
<td>• distinguish all HOPPE products</td>
<td>10-year guarantee on the mechanical operation</td>
</tr>
<tr>
<td></td>
<td>• convey the brand promise:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 10-year guarantee on the mechanical operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Made in Europe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- DIN EN ISO 14001 Environmentally-considerate manufacturing</td>
<td></td>
</tr>
<tr>
<td><strong>Special attributes</strong></td>
<td>• underline a unique selling proposition or an essential additional benefit of the HOPPE brand product</td>
<td>SecuSignal®, SecuSelect®, SecuDuplex®, Resista®</td>
</tr>
<tr>
<td><strong>Special logo</strong></td>
<td>• distinguishes HOPPE products that feature the HOPPE Compact System.</td>
<td></td>
</tr>
<tr>
<td><strong>Product attributes</strong></td>
<td>• present important information on a product or a benefit of the product</td>
<td>Category of use grade 2 (3, 4) to DIN EN 1906</td>
</tr>
<tr>
<td></td>
<td>• are identified with the pictograms designed by HOPPE</td>
<td>Category of use grade 2 to DIN EN 13126-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fire-resistance tested to DIN 18273</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Security set tested to DIN 18257 ES0 (ES1, ES2, ES3) (SK1, SK2, SK3)</td>
</tr>
<tr>
<td><strong>Certification marks</strong></td>
<td>• identify the products that have been checked by a certification body</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• are known trademarks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• apply internationally and regionally</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>RAL GUTZEICHEN</td>
</tr>
</tbody>
</table>

For all window handles certified according to RAL (RAL-GZ 607/9) and all security door handle sets certified according to DIN 18257 and RAL-GZ 607/6.
### Brand Attributes
- Distinguish all HOPPE products
- Convey the brand promise:
  - 10-year guarantee on the mechanical operation
  - Made in Europe
  - DIN EN ISO 14001 Environmentally-considerate manufacturing

### Special Attributes
- Underline a unique selling proposition or an essential additional benefit of the HOPPE brand product

### Special Logo
- Distinguishes HOPPE products that feature the HOPPE Compact System.

### Product Attributes
- Present important information on a product or a benefit of the product
- Are identified with the pictograms designed by HOPPE

<table>
<thead>
<tr>
<th>Category of use grade 2 (3, 4) to DIN EN 1906</th>
<th>Set for emergency exits to DIN EN 179</th>
<th>Maintenance-free</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke proofness tested to DIN 18273</td>
<td>Renovation extra long + extra wide</td>
<td>Extremely high corrosion resistance EN 1670, grade 4</td>
</tr>
<tr>
<td>Keyed locking</td>
<td>Stainless steel</td>
<td>Easy operation</td>
</tr>
<tr>
<td>Self-locking</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Certification Marks
- Identify the products that have been checked by a certification body
- Are known trademarks
- Apply internationally and regionally

- For all window handles certified according to RAL (RAL-GZ 607/9) and all security door handle sets certified according to DIN 18257 and RAL-GZ 607/6
- Security door handle sets according to DIN 18257, certified by DIN CERTCO
- Security door handle sets according to DIN 18257, certified by PIV CERT
HOPPE divides its product range into three lines based on the customers’ different requirements in price and perception of value – duravert®, duraplus® and duranorm®. The purpose behind this is to enable you, our partners, to get a better overview of our product range and to make it easier for you to find the right handle of excellence.

Whatever the differences, all three product lines have one thing in common: the proverbial HOPPE quality.

**Product lines**

- **duravert®**
  - for the discerning

- **duraplus®**
  - more than usual

- **duranorm®**
  - consistently good value
### Product range

<table>
<thead>
<tr>
<th>Core range</th>
<th>Service range</th>
</tr>
</thead>
</table>

### Packaging (examples)

- **Service range**
  - Security handles ES1 to ES3 (SK2-4)
  - Interior door handles with HOPPE Quick-Fit connection and spring cassette technology
  - Window handles within existing requirements, RAL and market standards, with Secu100® + Secustik®, Secu100® and Secustik® technology

- **Core range**
  - Security handles ES0 to ES3 (SK1-4)
  - Selected interior door handles with HOPPE Quick-Fit connection and spring cassette technology
  - Window handles within existing requirements, RAL and market standards, selected products with Secu100® + Secustik®, Secu100® and Secustik® technology

- **Service range**
  - Security handles according to ES0 (SK1)
  - Interior door handles with HOPPE profile spindle
  - Window handles below existing requirements and market standards, no RAL

### Technology and Security Classes (ES)

- Security handles ES1 to ES3 (SK2-4)
- Interior door handles with HOPPE Quick-Fit connection and spring cassette technology
- Window handles within existing requirements, RAL and market standards, with Secu100® + Secustik®, Secu100® and Secustik® technology

### Guarantees

- 10 years’ surface guarantee on selected finishes
HOPPE’s operational guarantee

According to HOPPE, a brand name product keeps its promise of quality to the enduser. As a way of ensuring this, HOPPE gives a 10-year guarantee on the mechanical operation of all door and window handles (as long as the respective assembly and maintenance guidelines are fulfilled; please see “Guarantee” on the right-hand margin).

HOPPE brand name products undergo numerous tests to ensure flawless operation. Static impact tests and durability tests are also made depending on the product type. These closely reflect the everyday knocks hardware has to take and extend beyond the tests and requirements of DIN EN 1906 or RAL-GZ 607/9.

Whereas for DIN EN 1906 and RAL-GZ 607/9 hardware is tested in isolation, HOPPE, more realistically, conducts operational tests on the door and window itself. This means that not just the function, but also the durability of the attachment between hardware and door or window, too, is tested.

HOPPE realistically tests door and window handles in situ, – on doors and windows.

With the 10-year guarantee on the mechanical operation, HOPPE extends way beyond the statutory 4 years of European regulations.

The next page gives you an overview of the operational guarantee tests made by HOPPE.
1. Tests on door handles

There are two durability grades (see p. 16) for door handles in DIN EN 1906 necessitating durability tests with various test cycles.

- **Grade 6:**
  Medium frequency of use, for residential hardware: 100,000 test cycles (1 test cycle = 1 x opening and closing the door).

- **Grade 7:**
  High frequency of use, for non-residential hardware: 200,000 test cycles.

Application-related standards are set for the HOPPE guarantee on the mechanical operation. In all durability tests, the door handles are tested on the doors themselves. Residential hardware is tested in 182,500 operational cycles (1 cycle = 1 x opening and closing the door) and handles for non-residential use are tested in 255,500 operational cycles. This is the equivalent of 50 or 70 operational cycles a day over a period of 10 years. Neither the door handle itself, nor any part of it, must become loose during the course of the test. The sets are then tested for their stability, ensuring they work flawlessly.

2. Tests on window handles

RAL-GZ 607/9 prescribes 10,000 tilt/turn test cycles in durability tests for window handles. HOPPE, again, tests in an application-related way. In tests for the operational guarantee, HOPPE window handles undergo a 15,000 tilt/turn cycle test on the window itself. This is the equivalent to 4 x opening and closing plus 4 x tilting and closing per day over 10 years (1 tilt/turn cycle = 1 x opening and closing of the window plus 1 x tilting and closing of window). The window handles are then tested for their stability to ensure perfect operation.

**Guarantee**

Guarantee:

Over and above the seller's liability for defects, we also guarantee the durability of the product in accordance with the following requirements and within the scope set forth below. As the manufacturer, we guarantee the function of properly used door and window hardware from HOPPE. This operational guarantee applies to the following features:

- transfer of the rotary motion to the door lock or the window turn/tilt hardware
- locking mechanism (in the case of window handles with special functions: lockable, automatic locking or Secustik®)

**Guarantee exclusions:**

All replaceable component parts, particularly screws, connecting spindles etc., are expressly excluded from this operational guarantee. A warranty of 24 months applies to electronic components. Moreover, no liability will be assumed for any damages caused by the following:

- unsuitable and improper use
- incorrect or negligent treatment
- the disregard of instructions for fitting or care, alterations and repair by the enduser or a third party
- chemical or physical agents, where the surface has been improperly treated, for example damage caused by sharp-edged objects
- elements (door, window) and/or hardware parts (e.g. locks, hinges etc.) which do not work perfectly

**Guarantee conditions:**

Our guarantee applies, in the event that a defect in the mechanical serviceability occurs within the guarantee period, solely to either the repair of the product for the original enduser free of charge, or to the replacement of the product free of charge with suitable or equivalent hardware, this decision being at our discretion. Costs, expenses, postage and similar expenses incurred by the guarantee holder shall not be reimbursed. Claim to guarantee shall only occur on presentation of the product itself and evidence that the mechanical defect occurred within the guarantee period. As this can be done by presenting the sales receipt, we recommend keeping this in a safe place at least until the end of the guarantee period.

**Guarantee period:**

The guarantee period shall be for 10 years and shall begin on the day of purchase by the original enduser. In the event of any claim, please contact the seller or manufacturer directly, presenting both the product and the receipt.

HOPPE Holding AG
Via Friedrich Hoppe
7537 Müstair
Aluminium:
The surface of HOPPE aluminium fittings is protected by either anodising or powder coating. Anodising consists of a controlled, electrically induced oxidation process with the aid of sulphuric acid, which causes the base material to bond with oxygen and to grow a protective surface layer, the so-called oxide film. This film protects the products against detrimental influences such as hand perspiration, humidity and light mechanical stress.
In powder coating, the coating powder is applied to the aluminium surface by means of an electrostatic process. It is then heated to a temperature of 150°-200°C causing the paint particles to melt to a film of paint in a chemical cross-linking reaction. There is no known risk to health in aluminium hardware. No special care is needed for aluminium as the oxide film protects it. Dirt can easily be removed with a damp cloth.

Stainless steel:
HOPPE brand stainless steel hardware is manufactured from chrome-nickel steel (steel no. 1.4301 to DIN). Thanks to its longevity, its harmlessness to the environment and to health as well as its corrosion acid-, and abrasion resistance, it is used in the food industry as well as the medical and domestic sectors besides the building trade. Stainless steel is also called corrosion-resistant because the alloy components of chromium and nickel develop an invisible passivation layer.
If stainless steel hardware show signs of rust, they are caused by rust particles naturally present in the atmosphere. Rust particles as well as traces of dirt and grease can be removed with a household detergent suitable for stainless steel. Stainless steel hardware is also available with our Resista® surface guarantee (see page 13).

Polyamide:
HOPPE brand polyamide hardware is manufactured using high quality polyamide (PA) which not only has enhanced mechanical properties but is also impact and wear resistant. Combined with its anti-static properties, and weathering and chemical resistance makes it a favourite material for engineering applications, such as hardware. HOPPE polyamide products are additionally UV-stabilised. Soiling can be removed with water and/or conventional cleaners.

Brass:
HOPPE brand brass hardware is made of high quality brass alloys. The surface is protected either by a transparent lacquer of elevated adhesive strength and resistance to solvents and chemicals, by electro plating such as chrome-plating or by a special vacuum coating process. If the protective coat of lacquer is damaged by mechanical action such as accidental scratching with keys corrosion (tarnishing brown) can occur.
Brass hardware requires no special care. Dirt can easily be removed with a damp cloth. Use of caustic cleansers should be avoided. Brass hardware is also available with our Resista® surface-guarantee (see page 13).
Resista® – HOPPE’s surface guarantee

HOPPE Resista® hardware has a 10-year surface guarantee (please see “Guarantee” on the right-hand margin).

They are therefore ideal for coastal areas and highly frequented areas such as public buildings, shops and hotels.

All products with the Resista® surface guarantee have undergone continual quality testing and, when new, conform to the requirements of the European standard EN 1670 (“Building hardware – Corrosion resistance – Requirements and test methods”).

Care:
Dirt can easily be removed with a damp cloth. The use of caustic cleansers or chemicals should be avoided. No further special care is needed.

Brass sets with chrome finish in the duravert® and duraplus® product lines also have the HOPPE Resista® surface guarantee, providing 10 years’ cover on the surface of these products, too.

Guarantee

Guarantee:
As manufacturer, we guarantee, under the conditions set forth below, the durability of properly-used HOPPE hardware, over and above the seller’s legal liability for material defects. The Resista® surface guarantee includes all defects which can be proved to have been caused through fault in manufacturing or material, for example when the surface is tarnished or discoloured (appearance of spots) or the protective surface has become separated from its base material, and not through improper use.

Guarantee exclusions:
All interchangeable parts, such as screws, connecting spindles and springs etc, are excluded from this guarantee. Furthermore, no liability will be assumed for any damage caused through:
- unsuitable or improper use
- incorrect or negligent treatment
- disregard for instructions for fitting or care
- alterations or repair by the enduser or a third party
- chemical or physical agents, where the surface has been improperly treated, for example by sharp instruments.

Guarantee conditions:
This guarantee relates, within the guarantee period, solely to either replacing the handle free of charge or to repairing same free of charge, on behalf of the original enduser, this decision being at HOPPE’s discretion. Costs and expenses, postage and packaging and similar, as incurred by the complainant, shall not be reimbursed. Claim to guarantee shall only occur on presentation of the product itself and the receipt and shall not exceed the original purchase price.

Guarantee period:
The guarantee period shall be for 10 years and shall begin on the day of purchase by the original enduser. In the event of any claim, complainants should address themselves directly to the seller or manufacturer presenting both the product and the receipt.

HOPPE Holding AG
Via Friedrich Hoppe
7537 Müstair
SecuSan® – Responsibility towards society

The issue of “hygiene” has been the subject of public concern for many years and is currently more topical than ever before. With SecuSan® door and window handles HOPPE has developed a solution that provides active protection in the very places where it is urgently required. Be it in clinics, schools, institutes or public buildings, in the hospitality sector, industry or leisure facilities – SecuSan® handles help to ensure high hygiene standards wherever people are present in large numbers.

SecuSan® is a special surface that immediately suppresses microbial growth on a lasting basis. It is entirely maintenance-free and designed for longterm usage. Its high level of efficacy has been confirmed in independent laboratory and practical tests.

Antimicrobial effectiveness

SecuSan® surfaces contain silver ions which are embedded in a carrier system of ceramic glass. They form an active part of this material and prevent the growth of germs such as bacteria, algae and fungi.

The silver ions destroy the cell membrane of the germ. This stops respiration and nutrition of the cells, so preventing cell division. Independent tests have proved that SecuSan® reduces microbial growth by more than 99%.

The SecuSan® surface remains effective even when cleaned at regular intervals.

1. before
High bacterial load on the surface.

2. after
Silver ions destroy the cell membrane of the germ.

3. Germ is killed.

4. There is a significant reduction in the bacterial load on the surface.
The laboratory test – Development of antimicrobial effect over time

Requirement: Based on the JIS (Japanese Industrial Standard) Z 2801:2000 and ISO (International Organization for Standardization) 22196:2011 standards it was tested whether the antimicrobial activity of SecuSan® is sufficient to achieve a reduction in bacteria of at least 3 log units (99.9%) in 24 hours on door and window handles as required in hygienically sensitive areas.

Procedure: A thin layer of the test bacteria specified by the German Society of Hygiene and Microbiology (DGHM) was applied to a Petri dish and incubated for 24 hours. Reference strains of Staphylococcus aureus and Escherichia coli K 12 were used here as the test bacteria. A reduction factor of 60% was achieved after 5 minutes for Escherichia coli, while the reduction factor was 50% after 30 minutes for Staphylococcus aureus.

Evaluation: SecuSan® showed a significant bactericidal effect with all test bacteria. The effect was especially marked in the case of Staphylococcus aureus (including MRSA) and Pseudomonas aeruginosa. A high level of hygienic safety is ensured by SecuSan® door and window handles.

The practical test – Tested in daily clinical practice
The mean bacterial load was recorded in two wards of identical construction and containing comparable patients at Universitätsklinikum Marburg and subjected to analysis in the course of a two-week clinical field trial.

The result: SecuSan® achieved an impressive result, not just during laboratory testing but also in daily clinical practice. A direct comparison was made between wipe disinfection of conventional door handles and no disinfection of SecuSan® door handles. SecuSan®’s high level of antimicrobial effectiveness was certified by the institute, in particular as regards its effect over time.
DIN EN 1906 – European and German standardisation for hardware

For the purposes of European standardisation, EN 1906 has been worked out to specify the requirements and test methods for door handles and knobs. It was implemented as a European standard in October 2001. After several revisions it is currently valid as EN 1906:2012. The DIN EN 1906 only defines performance parameters while the dimensions of the hardware is not taken into account. It introduces a classification code system, allowing products to be compared. This European Standard specifies test methods and requirements for spindle and fastening elements, operating torques, permissible free play and safety, free angular movement and misalignment durability, static strength and corrosion resistance for sprung and unsprung handles and knobs for doors on backplates or roses. Requirements and test methods are structured in such a way that everyday use is simulated:

According to DIN EN 1906 the increased safety tests (for example for doors to cellars where there is risk of falling) are optional, so the figure 0 may appear by digit 5 in the classification key. However, according to DIN 18255, all public building sets, and as such subject to categories of use grades 3 and 4, must pass this test.

### Meaning of the numbers in the classification key:

<table>
<thead>
<tr>
<th>Classification key</th>
<th>Grades</th>
<th>Description of grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category of use</td>
<td>1-4</td>
<td>more information on p. 17</td>
</tr>
<tr>
<td>Durability</td>
<td>6 or 7</td>
<td>6 = 100,000 cycles, 7 = 200,000 cycles</td>
</tr>
<tr>
<td>Door mass</td>
<td>no classification</td>
<td></td>
</tr>
<tr>
<td>Fire resistance</td>
<td>0, A, A1, B, B1, C, C1, D or D1</td>
<td>0 = Not approved for use on fire/smoke door assemblies, A = Suitable for use on smoke door assemblies, A1 = Suitable for use on smoke door assemblies (tested with 200,000 test cycles on a test door), B = Suitable for use on fire/smoke door assemblies (tested with 200,000 test cycles), B1 = Suitable for use on fire/smoke door assemblies (tested with 200,000 test cycles on a test door), C = Suitable for use on smoke and fire-resistant doors with requirements for fire-resistant dividers in backplate, door rose and escutcheon, C1 = Suitable for use on smoke and fire-resistant doors with requirements for fire-resistant dividers in backplate, door rose and escutcheon (tested with 200,000 test cycles on a test door), D = Suitable for use on fire/smoke door assemblies with require for a steel core in the handle, D1 = Suitable for use on fire/smoke door assemblies with require for a steel core in the handle (tested with 200,000 test cycles on a test door)</td>
</tr>
<tr>
<td>Safety</td>
<td>0 or 1</td>
<td>0 = Normal use, 1 = Safety applications</td>
</tr>
<tr>
<td>Corrosion resistance</td>
<td>0-5</td>
<td>0 = No defined corrosion resistance (no test), 1 = Mild resistance (24-hr salt-spray test), 2 = Moderate resistance (48-hr salt-spray test), 3 = High resistance (96-hr salt-spray test), 4 = Very high resistance (240-hr salt-spray test), 5 = Extremely high resistance to corrosion (480-hour salt-spray test)</td>
</tr>
<tr>
<td>Security</td>
<td>0-4</td>
<td>0 = Furniture not approved for use on burglary resistand doors, 1 = Mild burglary resistance, 2 = Moderate burglary resistance, 3 = High burglary resistance, 4 = Very high burglary resistance</td>
</tr>
<tr>
<td>Type of operation</td>
<td>A, B or U</td>
<td>A = Spring-assisted furniture, B = Spring-loaded furniture, U = Unsprung furniture</td>
</tr>
</tbody>
</table>
The hardware is classified into 4 categories of use which are based on frequency of use and the expected area of use. The requirements and test loads are graded according to these categories.

1. Category of use (excerpt from the most important tests out of a total of 13)

<table>
<thead>
<tr>
<th>Rotational torque strength test</th>
<th>Axial strength test</th>
<th>Free play “at rest”</th>
<th>Free angular movement</th>
<th>Grades</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 Nm</td>
<td>300 N</td>
<td>&lt; 10 mm</td>
<td>&lt; 10 mm</td>
<td>1</td>
<td>Medium frequency of use by people with a high incentive to exercise care and with a small chance of misuse, e.g. internal residential doors.</td>
</tr>
<tr>
<td>30 Nm</td>
<td>500 N</td>
<td>&lt; 10 mm</td>
<td>&lt; 10 mm</td>
<td>2</td>
<td>Medium frequency of use by people with some incentive to exercise care but where there is some chance of misuse, e.g. internal office doors.</td>
</tr>
<tr>
<td>40 Nm</td>
<td>800 N</td>
<td>&lt; 6 mm</td>
<td>&lt; 5 mm</td>
<td>3</td>
<td>High frequency of use by public or others with little incentive to exercise care and with a high chance of misuse, e.g. public office doors.</td>
</tr>
<tr>
<td>60 Nm</td>
<td>1000 N</td>
<td>&lt; 6 mm</td>
<td>&lt; 5 mm</td>
<td>4</td>
<td>High frequency of use on doors which are subject to frequent violent usage, e.g. football stadiums, offshore installations (oil rigs), barracks, public toilets, etc.</td>
</tr>
</tbody>
</table>

* HOPPE handle set for commercial applications

**Test examples**

- Rotational torque strength test
- Axial strength test
- Free play “at rest”
- Free angular movement
- Durability test

The requirements and testing procedures are formulated in such a way that the actual strain of everyday use is simulated by strength tests, corrosion tests as well as measurement of free-play before and after cycle tests on the hardware. At the top of the page, you’ll find some test examples depicted.

In order to maintain the exchangeability of locks and hardware in Germany, some national dimension standards are unavoidable. This is why dimensions for door handle sets compatible with DIN 18251 locks and DIN 18252 profile cylinders continue to be determined by the DIN 18255 standard which appeared as a so-called residual standard in May 2002 as an addendum to DIN EN 1906.

All HOPPE door handle sets for commercial applications correspond to DIN EN 1906, category of use grade 3 and 4, as well as to the German residual standard DIN 18255 and have been successfully supplied to the non-residential building sector for many years.

For specifiers, HOPPE offers external or internal test certificates for door handle sets according to DIN EN 1906 which serve as verification of suitability.
How to tell between a left-hand or right-hand door:

In order to tell whether you have a left-hand or right-hand door according to DIN specification, you have to ascertain where the hinges are on the inside of the door.

1. What does a knob (pad) / handle set consist of and what is it for?
A knob (pad) / handle set has a knob or a push-pad on the exterior side of the door and a handle on the interior side. The knob (pad) or push handle on the exterior side prevents the normal opening of the unlocked door. A knob (pad) / handle set always has a profile cylinder holing and is often used on entrance doors as well as on profile doors (side entrances). Below is an example of a knob (pad) / handle set with knob for corridor doors with a symmetrical handle shape on the interior side.

2. What do asymmetrical and/or symmetrical handle designs look like?
You will find some examples below.

In the case of asymmetrically-shaped handles and knob / handle sets it is important to ascertain whether the handle on a door is to be fitted to the left or to the right according to DIN.
3. How do I recognise a left-hand and right-hand door?
In order to ascertain whether you have a left-hand or right-hand door according to DIN, you need only check where the hinges are on the interior side of the door.

**DIN left**

- Outside
- Inside
- Hinges left
- Handle showing to the left

**DIN right**

- Outside
- Inside
- Hinges right
- Handle showing to the right
The HOPPE profile-spindle

- Easy to install.
- The Allen screw cannot loosen itself.
- Perfect operation regardless of door thickness.

How it works

The spindle is made in such a way that it can easily be inserted into the handle, whereby even tension is created over the whole lock follower.

Initial tightening:
After just one turn, the special screw enters the spindle, holding the handle in the correct position.

Firm tightening:
The onion-shaped tip of the screw presses the two halves of the spindle and is then held firmly in place by the pressure against the sides of the handle. To ensure play-free fitting, the screw must be firmly tightened.

The HOPPE profile spindle is used for series that are not equipped with the HOPPE Quick-Fit connection.
Time is money – quicker and better:
The HOPPE Quick-Fit connection

With normal door handle installation, lots of steps have to be taken, quite often not without awkward fumbling. This is tedious and takes time. What is infinitely better is the HOPPE Quick-Fit connection. With its advanced technology, door handles can be installed in one simple step – and to last!

The key point of the technology is the blocking mechanism, developed by HOPPE, in the receiver handle. This holds the solid spindle of the other handle firmly and without play. It is with the whole width of the spindle that maximum torque transmission is achieved. The HOPPE Quick-Fit connection is a variable axial handle fitting, tested according to DIN EN 1906 and can be used for various door-thicknesses (in a defined area).

The advantages of the HOPPE Quick-Fit connection at a glance:

• Very quick door handle fitting: around 75% time saving compared with normal fitting

• No Allen screw or transverse spindles needed
  - no hole for Allen screw needed
  - no alignment of the spindle necessary when tightening the Allen screw
  - no loosening of the Allen screw or spindle possible

• Integrated blocking mechanism in the receiver handle
  - no tools needed for installation
  - play-free handle connection
  - long-lasting, firm fitting of the door handles

• Use of a solid spindle
  - solid spindle for maximum torque transmission

• Variable axial handle fitting tested to DIN EN 1906
  - can be used for various door-thicknesses (in a defined area)

• Easy and quick removal of door handles
  - eg, with the Allen key included or a screwdriver

Important:
HOPPE Quick-Fit products should not be combined with spindles from other manufacturers!

You can find HOPPE Quick-Fit connection films (assembly and disassembly) at www.hoppe.com. If you have any questions please get in touch with your HOPPE contact person.
HOPPE Quick-FitPlus
Less is more

HOPPE Quick-FitPlus is the logical further development of the tried and tested HOPPE Quick-Fit connection. This technology not only allows simple installation, without the need for screws, of door handles, but also of round, square and rectangular flat roses. The new HOPPE Quick-FitPlus sets are making an impression with their virtually flush rose design.

Simple fitting
Aesthetically pleasing flat roses and door handles using the Quick-Fit connection are installed on the door in just a few steps: The handle roses with supporting lugs are affixed to the prepared door and the door handles are simply put together. The full set is therefore installed with precision in just a few seconds without any screws – even in renovations.

Attractive design
The new Quick-FitPlus sets are a perfect match for current design trends. The stainless steel roses are just 2 mm thick and virtually flush with the door leaf.

Depending on the door preparation, they can be used with or without escutcheons.

Important:
HOPPE Quick-Fit products should not be combined with spindles from other manufacturers!

HOPPE Quick-FitPlus handle sets are available in two designs which differ in terms of assembly and door preparation:

- Handle rose and escutcheon with through-going supporting lugs
- Self adhesive escutcheons

On the following pages you will find detailed information about the different execution.
Handle rose with through-going supporting lugs

The through-going supporting lugs of the handle roses consist of a nylon pin and sleeve each. By plugging one into the other a play-free and firm fixing is produced. Matching escutcheons with through-going supporting lugs are also available. Please see p. 25 for door preparation and fitting.

Door preparation

This solution is for use on standard doors with standard locks. No special door preparation is needed. Only two 7.5 mm-Ø guide holes are necessary for the through-going supporting lugs.

Fitting

The handle roses with through-going supporting lugs and the door handles are simply fitted together and escutcheons with through going supporting lugs added if necessary (see p. 25), with the whole set able to be installed without the need for screws.
Spring cassette for flat handle roses with supporting lugs

Handle roses with through-going supporting lugs (E847N, E848N and E849N) can be fit with a spring cassette as an option.

Door preparation
As the bore must be 28 mm in diameter in the area of the handle hole, it might be necessary to increase the existing hole.

Important note:
For rebated doors, it is recommended to drill the bore for the spring cassette on the rebated side of the door.

Fitting
Before fitting the HOPPE Quick-FitPlus handle set, clip in the spring cassette on the back of the handle rose.

1. Please make sure to clip in the spring cassette in the right direction (the arrow indicates the handle’s direction of operation).
2. Clip in the spring cassette on the back of the handle rose.
3. Put the handle roses together – and fitting is complete!
Escutcheon with through-going supporting lugs

Door preparation and fitting
This solution is for use on standard doors with standard locks. No special door preparation is needed. Only two 7.5 mm-Ø guide holes are necessary for the through-going supporting lugs. Then the escutcheons can simply be put together.

1. Fix the template on the door by inserting the key into the keyhole and mark the bores for the guiding lugs.
2. Drill the holes for the guiding lugs (remove the lock case for this).
3. Put the escutcheons together – and fitting is complete!

Disassembly
By using the disassembly aid, the flat handle roses and escutcheons (both self-adhesive and with supporting lugs) can easily be removed.
Simply stick on instead of screwing: HOPPE Quick-FitPlus self-adhesive escutcheon

In many areas, today's advanced bonding technologies have replaced screwed fastening used for ages. For example, the foil used for HOPPE Quick-FitPlus, which is adhesive on both sides, is used by the car and furniture industry, too. According to the respective demands, it is resistant to elevated temperatures, moisture and ageing.

The self-adhesive handle roses and escutcheons are suitable for:
- Solid wood doors
- Real wood veneer doors
- Painted doors
- Decorative surface-/laminated doors

The door surfaces in the area where the adhesive is to be used must be totally flat. The sticking surfaces must be clean, dry and free of both grease and separating agents as well as capable of bearing the weight. Yet, for stained doors and doors with oil finish, conventional escutcheons with screw fixing are recommended.

Door preparation
Clean the door surface in the area where the adhesive is to be used. Only the cloth delivered with the products should be used to clean or remove grease from the surface of the door. Smooth the protruding edges of the holes if necessary.

Positioning and sticking of the escutcheons

The self-adhesive oval keyhole escutcheons can be positioned with the enclosed installation key.

For the installation of the profile cylinder escutcheons the cylinder already fitted serves as a guide. The privacy version can be positioned by using the spindle connected to the handle rose.

Should the escutcheon not be positioned accurately enough, it is still possible to re-position it as adhesion is complete only after 24 hours.

Disassembly
With the help of a normal hairdryer you can loosen the adhesion again and then gently remove the handle rose from the door panel by using the disassembly aid (see p. 25) or a scraper.
Renovation with HOPPE Quick-FitPlus

The extra-large square or round roses are ideal for renovation work as they completely cover any signs of the old fittings.

You can give your door a whole new appearance in a few movements of the hand – with HOPPE Quick-FitPlus sets.

The current hardware is no longer quite up to date, so you want to replace it.

Its removal quite often leaves unsightly marks on the door.

The HOPPE Quick-FitPlus fittings completely cover any signs of the old fittings.
Quickly put together – and taken apart again!

HOPPE has made the best even better: for category of use grade 4 – i.e. for commercial buildings – we have refined our fixed/movable Sertos® clip-in connection. A newly designed ball locking mechanism in the handle connection does not only ensure a certified higher durability (1,000,000 test cycles!), but also has another advantage: handles with the Sertos® ball locking mechanism are not just easily installed, they are also just as easily removed.

The extremely high durability of the Sertos® clip-in connection has been certified by the PIVCERT Plus test carried out by the Velbert testing institute (tested to DIN EN 1906, category of use grade 4 in a durability test with 1,000,000 test cycles as well as extremely high corrosion resistance grade 5). Interior door sets as well as sets for fire doors, smoke doors and emergency exit doors were tested.

Installation and removal made easy

Thanks to the new ball locking mechanism, handles with the Sertos® clip-in connection are not only easier to install, but can also be quickly removed from the door without the need for special tools. And this is how it works:

1. Place the base and tighten the screws
2. Clip on the roses
3. Insert the solid profile spindle
4. Put the door handles together and tighten the grub screw
5. Fitting is complete!

For removal:
- Loosen and remove the grub screw and unclip the roses
- Press the removal spot to release the ball locking mechanism (use a hex key or a simple screwdriver)
- Remove the handles (possibly by making slight shaking movements)

Other features: Sertos® sets feature a high-quality, low-play solid profile spindle with a flat spring that has been hardened and slotted on both sides to compensate for tolerances in the lock follower as well as their own spring cassette.
Non-fixed bearing, HOPPE spring and bases

Non-fixed HOPPE standard bearing

HOPPE uses a washer made of a part crystalline and glide-modified nylon here. This type of nylon is characterised by its high resistance to wear-and-tear. This is why the washer, or the non-fixed bearing, is suitable for heavily used doors.

The washers come in finishes to match the surface of the handle.

The non-fixed bearing is used as standard on security sets, interior door sets and partly on profile door sets.

The new HOPPE spring for sets for interior doors

Some of the HOPPE door sets on rose or backplate (loose) have a new spring developed by HOPPE.

The advantages of the new spring:

- they can be used for left-hand or right-hand handles, so
  - they are suitable for both interior and exterior door handles
  - no need for left-hand and right-hand versions for symmetric handle designs
- they help the lock to keep the handle in the correct position, so
  - it feels even better when the handle is turned
  - there is less probability of fatigue in the lock
  - the handle always returns to the 90° position

Zamak insert in the nylon base to receive the spindle in the spring mechanism.

European Patent EP 1 953 311
HOPPE spring

The HOPPE bases for the clip-on escutcheons

The nylon bases have guiding lugs (pictured is the M42KVS). The alternate screwing ensures a precise and firm fitting. Both bases are identical, thereby excluding any risk of confusion.

All interior door sets on rose (non-fixed) with cover caps in aluminium, stainless steel, nylon and brass have these nylon bases.
Advantages and fixing examples of HOPPE exterior door products

- Uniform drilling in the case of narrow backplate for pull handles (247N) profile door sets on backplate and security sets, resulting in:
  - greater flexibility in shape
  - simple fitting of the door handles in situ
  - no damage in transit
  - space-saving in transit

<table>
<thead>
<tr>
<th>Exterior side of door</th>
<th>Profile with 3 drill-holes</th>
<th>Interior side of door</th>
</tr>
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<tbody>
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</table>

Important:
You can find in our product range a drilling jig to fix profile door sets with backplate, security sets and interior door sets with escutcheon.
HOPPE profile door sets

Like all HOPPE products, profile door sets are renowned for their quality, workmanship, technology and durability.
HOPPE profile door sets come in aluminium, stainless steel, nylon and brass. These products have been specially developed for doors with narrow profiles (frames) and come in numerous types.

- **ES1 (SK2) Security set on backplate**
  - knob (pad) / handle sets with cranked pads, push handles or knobs
  - sets with handles on both sides
  - fixed / movable door handles
  - with spring
  - with and without cylinder cover
  - with steel base and lugs in the external backplate
  - zamak base and lugs in the internal backplate
  - concealed fixing with M6 thread screws
  - tested to DIN 18257

- **Sets on backplates**
  - knob (pad) / handle sets with cranked pads, push handles or knobs
  - sets with handles on both sides
  - sets with short neck handles on the exterior – for doors with blinds
  - fixed / movable or non-fixed handles
  - with or without spring
  - with stainless steel base and lugs, zamak base and lugs or without base and lugs
  - concealed or visibly fitted with M6 thread screws from the inside

- **Sets on rose**
  - knob (pad) / handle sets with cranked knobs/pads (fixed)
  - knob (pad) / handle sets with cranked knobs/pads (fixed/movable)
  - sets with handles on both sides
  - fixed / movable handles
  - with spring
  - with zamak base
  - concealed fixing with M5 fixing nuts (for aluminium doors) or M5 expanding lugs for PVC doors

- **Fire-resistant rose sets**
  - Fire-resistant knob / pad handle sets with cranked knobs (fixed)
  - Fire-resistant knob / pad handle sets with cranked knobs (fixed/movable)
  - Fire-resistant sets with handles on both sides
  - Fire-resistant door handles (fixed/movable)
  - with spring
  - with metal base
  - concealed fixing with M5 fixing nuts (for aluminium doors) or M5 expanding lugs (for doors)
  - tested to DIN 18273
The HOPPE fixing systems for pull handles

- A splaying system is used for the one-side-fixing of the pull handle onto PVC and aluminium profiles. The pull handle is thereby firmly fixed, completely play-free, for a long period.

- A long term firm attachment is established by means of the support provided by the steel/aluminium reinforcement (or the main chamber), along with the splaying of the fixing system into the reinforcement (or main chamber) at the same time.

- In addition to the splaying system, the one-side-fixing of pull handles to wooden doors is provided with a threaded sleeve. This gives the fixing system extra strength. The pull handle is thereby fixed firmly for a long period of time and remains play-free.

- In addition, HOPPE can provide fixing sets for:
  - pull handle/pull handle attachments,
  - glass doors (one-side with cover roses and pull handle/pull handle attachments),
  - wooden doors with a thickness of less than 56 mm (with cover roses on the interior side of the door),
  - fixing to walls.

The advantages of the HOPPE pull handle fixing system no. 11

- Fixing system no. 1101
  - is a solution to mounting the pull handle near the lock case (see picture on right)
  - can be used with all nylon profiles with a pre-chamber dimension = V-dimension of 11-16 mm), as well as with aluminium- and wooden profiles (except single chamber profiles)

- Fixing system no. 1103
  - is a solution to mounting the pull handle near the lock case
  - can be used with all nylon profiles (pre-chamber dimension = V-dimension 11-26 mm), with aluminium- and wooden profiles (except single chamber profiles)

- Fixing system no. 1102
  - can be used with all nylon-, aluminium-, and wooden profiles with a minimum door thickness of 56 mm (except single chamber profiles)
  - can be used regardless of pre-chamber dimension = V-dimension
  - allows simple and time-saving mounting (only a 10 mm drilling is necessary, as the fixing system has a self-cutting thread)
The HOPPE clip-on escutcheon with self-adhesive base

The reverse side of the nylon base used in the HOPPE clip-on escutcheon with a height of 8 mm for profile doors is provided with a self-adhesive pad. In fitting, the foil covering the pad needs to be removed; the base is then stuck on the door and the cover cap is clipped onto the base. In the case of 3 mm high clip-on escutcheons, the self-adhesive pad is fitted directly into the reverse side of the cover cap. Cover caps come in various finishes in aluminium and stainless steel.

The HOPPE profile door sliding rose

The HOPPE profile door sliding escutcheon has a two-part zamak base. In fitting, the lower part of the base is screwed onto the profile first. The second part is then slid on, covering the screwing points of the lower part and the cover cap clipped on. Once the cylinder has been fitted, movement of the upper base is no longer possible, as access to the screws is prevented. The sliding escutcheon comes with a cylinder cover (see picture – height 11 or 14 mm) or with profile cylinder holing (height 6, 8 or 14 mm). The cover cap comes in various finishes in either aluminium or stainless steel.

The HOPPE profile door security escutcheon with removal safeguard

In the profile door rose illustrated, the zinc pressure die-cast base is attached to the profile with special fixing means. The rose is protected from unlawful removal by a steel plate, which is held in place by the profile cylinder. The cover cap which is available in aluminium, stainless steel, brass or nylon is simply clipped over the zinc base.

The HOPPE ES1 security set according to DIN 18257:2003-03

The HOPPE ES1 security set comes with a steel plate which has an adhesive pad on one side and has to be stuck onto the lock case in the area of the profile cylinder (i.e. on the lock side pointing towards the door exterior side) before fitting the security escutcheon. The security escutcheon, which is available in aluminium and stainless steel or without cylinder cover (for protruding cylinder lengths of 10-18 mm), comes with a hardened base.
Fire-resistant door sets

Fire doors

Fire doors may remain in use for a long time and can have a long life, depending on circumstances. If any changes are necessary over the course of time, the following points should be noted.

- A fire-resistant door must be authorised by building inspectors.
- No alterations are permitted to be made on approved fire doors.

Fire barriers are, according to DIN 4102, part 5, doors or gates which close automatically and whose purpose is to prevent the spread of fire. Fire-doors are categorised according to the length of time they can resist fire (T30 = 30 minutes, T60, T90 or T120). Fire doors must fulfil the following basic requirements:

- they must close automatically
- they must meet the specified fire safety requirements (i.e. they must prevent the spread of fire)
- they must operate reliably over some time (200,000 openings and closings)

How should fire-resistant handle sets be designed?

In Germany fire-resistant handle sets have to be designed according to the requirements of DIN 18273 if they are to guarantee the fire-resistance of fire doors. This standard is valid for all fire-resistant handle sets used in fire and smoke doors in Germany. In addition to the handle set, other fire-tested parts, such as the lock, the hinges, the door closer etc., also make up the fire door. Should any non fire-tested part be used in the make-up of the fire door, then the above-mentioned requirements may not be met.

Basic features of sets manufactured according to DIN 18273 mean that:

- The materials and assembly of the fire-resistant door handles must be of such that the fire-preventing properties and long-term function of the door are not infringed in any way when fitted to the door under the prescribed conditions and used appropriately.
- The spindle must be made of steel, with 9 mm x 9 mm cross section and be one single solid piece over its full length.
- If fire-resistant door handle sets (for example aluminium sets) are made from a material which melts below 1,000° C (300° C for smoke doors) then, as a rule, all individual parts relating to the correct function of the door handle set (handle with steel core/backplates and roses with steel base/fixing means made of steel) must be made from material which melts above 1,000° C. What is important is that the fire door can still be operated after a fire.
- Fire-resistant handle sets must withstand an endurance test without incurring damage such as distortion or cracks (200,000 opening and closing operations for active door leafs, 100,000 operations in the case of the inactive leave of double doors).
- Doors on escape routes must be provided with door handles the ends of which are suitably shaped (e.g. curving back towards the door) to avoid injury – see HOPPE fire-resistant FS-138F handle.

Important:
Fire-resistant handle sets according to DIN 18273 form part of the building regulation list A of the German Länder (Federal States) Building Regulations and must have the conformity certificate as proof of application. The conformity certificate is issued by a recognised testing and certification body as long as the building product corresponds to the appropriate technical regulation (in this case DIN 18273) and has undergone a continual in-house production testing as well as an external testing by the certification body. HOPPE fire-resistant sets (not individual parts) have been tested by the Materials Testing Institute of North Rhine-Westphalia and bear the “Ü” (for supervision) sign, proving that documentation as requested by the law is available.
HOPPE fire-resistant handle sets meet DIN 18273 requirements (to suit doors up to T90 requirements)

All HOPPE fire-resistant sets have long lugs to bridge relatively large door thicknesses. In the case of sets on rose or short backplate, the lugs have been reduced from a 7 mm diameter to 6.2 mm. This means that the lock hole, depending on the type of door, should be at least 6.5 mm for sets on rose or short backplate. If this is not the case, please state exact dimensions of the lock hole and door thickness.

HOPPE fire-resistant knob (pad)/handle sets are all fitted with a fixed knob or pad and a fixed/movable spindle. In escape routes, knob (pad)/handle sets may only be used when the direction of the way of escape is absolutely clear.

It is usual for panic door handle sets (FS-AP) to be fitted on doors in escape routes. For this reason it is advisable to choose a type of handle in the end of which points towards the door leaf. All door handle sets for locks with a panic function must have both a firm and movable handle bearing. All HOPPE fire-resistant panic sets come as fixed/movable versions with a fire-resistant solid panic spindle. In such a way force is not spread to the lock follower.

Inactive door leaf sets (FS-SF) produced by HOPPE all come with an exterior backplate or exterior blind rose. The solid spindle can be fitted accordingly, depending on the type of lock.
DIN EN 179 for emergency exit devices and DIN EN 1125 for panic devices

The European standards, DIN EN 179 for emergency exit devices and DIN EN 1125 for panic devices, have been in force since June 2002 and were revised in 2008 in terms of the requirements for handle dimensions among other things.

In the past, no distinction was made in escape routes between doors with emergency exit devices and doors with panic devices. All fire and panic door hardware with a spindle of 9 mm and handle shapes turned towards the end of the door leaf was admissible.

The above-mentioned standards differentiate between two types of devices. They define the requirements and test procedures and give concrete advice on their use.

- **Area of application:**
  For doors in escape routes where emergency situations can arise. The people in the building are familiar with the exits and their hardware (i.e. in office buildings not used by the public at large).

- **Emergency situation:**
  An emergency situation is when a life-threatening situation arises for one or more persons yet is not necessarily a cause for panic. A typical scenario is a fire in an office where the office-staff are familiar with the escape route and where evacuation can occur in a controlled way.

- **Panic situation:**
  A panic situation can arise when many people have to evacuate a building in a life-threatening situation. Thick smoke, darkness and the presence of people not familiar with the surroundings are important factors. A typical example is a fire in a cinema.
### DIN EN 179
**emergency exit devices**

- **Permitted hardware:**
  Door handles or pull handles/push pads which have been developed for emergency situations (see drawings below).

- **Important information:**
  The hardware and lock must always be tested and certified together. It is absolutely essential to adhere to national regulations.

### DIN EN 1125
**panic devices**

- **Permitted hardware:**
  Horizontal push or touch bars, which cover the width of the door.

- **Important information:**
  The push or touch bar and the lock must always be tested and certified together. It is absolutely essential to adhere to national regulations.

---

#### Important features of fire-resistant hardware for emergency exits to DIN EN 179:

1. **Fire-resistant knob (pad)/handle set**
   - "U-shaped"-handle with steel core and fixed/moveable connection
   - Knob
   - HOPPE-FDW-solid profile spindle (9 mm)

2. **Fire-resistant panic handle set (FS-AP)**
   - "U-shaped"-handle with steel core and fixed/moveable connection
   - HOPPE-FS-AP solid spindle (9 mm)

3. **Fire-resistant set for inactive door leaves (FS-SF)**
   - "U-shaped"-handle with steel core and fixed/moveable connection
   - Exterior blind rose
   - HOPPE-solid spindle (9 mm)

---

**Dimensional requirements for a handle to DIN EN 179**

- Distance from leading edge of the door ≤ 150
- min. 120
- max. 30
- 95
- Testblock
HCS® – HOPPE Compact System

HCS® is a compact lock and hardware system for the home and office. It is suitable for all timber and glass doors as well as for partition doors. The wide selection of versions, materials and designs with a variety of finishes offers a large choice for interior doors.

**HCS®:**
- is a unique product developed by HOPPE
- is ideal for wood, glass and partition doors for the home
- can be fitted in less than a minute
- is internationally patented – there is nothing else like it!
- comprises door hardware, lock and locking function in one

HCS® consists of the following five components:

1. System core with integrated handle set (for rebated or flush doors)
2. Latch set (bolt and tube)
3. Decorative rings (appropriate versions for different door thicknesses)
4. Clip-in components (for non-keyed and keyed locking)
5. Strike plates (for rebated or flush doors)

There are four HCS® versions:

a. **Passage:** for doors which do not need to be locked (without clip-in components)

b. **Non-keyed locking (SK/OL-15):** for doors which need to be locked such as bathrooms or toilets. Clip-in components: emergency release (exterior) and turn button (interior)

c. **Keyed/non-keyed locking (15/OL-15):** for doors which need to be locked by key from the outside such as bedrooms or studies. Clip-in components: keyed cylinder (exterior) and turn button (interior)

d. **Keyed locking (15/15):** for doors which need to be locked by key such as offices. Clip-in components: keyed cylinder (exterior and interior)
**HCS® – The preparation of timber doors**

- Handle and latch bolt are at the same height from finished floor level
- Backset of 50 mm, 60 mm (standard backset), 70 mm or 80 mm
- Door thickness of rebated doors: 38-43 mm
- Door thickness of flush doors 25-45 mm and 48-53 mm
- For other door thicknesses please get in touch with your HOPPE contact partner
- For the preparation of steel frames please contact the manufacturer.

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**Rebated doors**

<table>
<thead>
<tr>
<th>Strike plates for rebated doors</th>
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<tbody>
<tr>
<td>HCS® SB-D</td>
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<tr>
<td>HCS® SB-E</td>
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</table>

**System core for rebated doors**

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**Flush doors**

<table>
<thead>
<tr>
<th>Strike plates for flush doors</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCS® SB-A</td>
</tr>
<tr>
<td>HCS® SB-B</td>
</tr>
<tr>
<td>HCS® SB-C</td>
</tr>
</tbody>
</table>

Ø 54 mm for door thickness 25-45 mm
Ø 64 mm for door thickness 48-53 mm

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**HCS® – The preparation of glass and partition doors**

Glass and partition doors should be prepared for the installation of HCS® as illustrated below.

**Glass- and partition door**

Preparation of glass and partition doors (active and inactive door leaf) for glass door HCS® and HCS® latch part.

**Glass door with metal frame**

Preparation of glass doors with 20 mm and 26 mm metal frame to suit HCS® glass door adapter 1) HCS® GD A763 and 2) HCS® GD A764.

To fit the HCS® securely and permanently to the door, we recommend our HCS® tool kit.
The HOPPE range for sliding doors

With the range for sliding doors, the fitting technology has been further developed for simplicity and ease. For example, with the innovative telescopic spindle (in the panic release / turn button version), it is no longer necessary to have a set screw and the respective drill hole. Furthermore, this enhanced technology can be used with a wide range of door-thicknesses. The doors are not spoilt in any way by drilling or unsightly preparation.

Advantages at a glance:
- Quick and easy fitting
- Shorter fitting time
- With innovative telescopic spindle (no need for set screw)
- Suitable for a wide range of door-thicknesses
- Concealed fixing (exception: 4930)

Features of sliding door sets of the duravert® product line:
- All finishes with the Resist® surface guarantee
- Maximum projection including stowable turn button 4 mm
- Solutions with normal or stowable turn button (stowable turn button as standard with oval and square shells)

Features of sliding door sets of the dura plus® product line:
- Some finishes with the Resist® surface guarantee
- Maximum projection including stowable turn button 4 mm
- Solutions with normal or stowable turn button (stowable turn button as standard with oval and square shells)

Features of sliding door sets of the duranorm® product line:
- Solutions with round, oval, square and rectangular shells
- Easy assembly
- Maximum projection 2 mm

The sliding door sets are available in the following types:

<p>| | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>oval standard keyhole (OB)</td>
<td>Set 3 and</td>
<td>Set 4</td>
</tr>
<tr>
<td>external: emergency release, internal: turn button (SK/OL)</td>
<td>Set 1 and</td>
<td>Set 2</td>
</tr>
<tr>
<td>external: emergency release, internal: stowable turn button (SK/OL)</td>
<td>Set 7</td>
<td></td>
</tr>
<tr>
<td>without keyhole (UG)</td>
<td></td>
<td>Set 5</td>
</tr>
</tbody>
</table>
Door preparation
You will find details of door preparation for the new sliding door sets with round and oval sliding door shells below. Detailed installation instructions are enclosed with every set.

Sliding door sets:
- 4930
- M463
- M472

Sliding door sets:
- 4920
- 4921
- M462
- M471

Door preparation
You will find details of door preparation for the new sliding door sets with round and oval sliding door shells below. Detailed installation instructions are enclosed with every set.

Reliability tests
Turn button and emergency release have successfully undergone a test of 50,000 operational cycles.

Test over 200 hours with a load of 1 kg at a temperature of 70°C.
The window as a source of danger

About two-thirds of all break-ins in detached houses occur through windows or French doors. Common ways of breaking in are by forcing the window with levers or by tampering with the window fitting from outside, whereby the window handle can be moved to the open position. Tilted windows, too, can be an invitation for burglars. The window handle can be reached through the opening and then turned to the opening position, thereby allowing free entry into the house.

HOPPE can provide more protection for windows with the technical solutions Secustik®, Secu100® + Secustik®, Secu100®, Secu200® and SecuSelect®.

- **Secustik® technology**
  Window handles with Secustik® technology contain a patented jamming-device which provides integrated security. This makes it more difficult to move the window fitting unlawfully from outside. The precision clicking of the blocking mechanism when engaging itself is the audible sign of more security for your windows. For more information about this technology see page 49.

- **Secu100® technology**
  The Secu100® technology prevents the turning and pulling off of the window handle up to a torque of 100 Nm*. For more information about this technology see page 55.

- **Secu100® + Secustik® technology**
  The Secu100® + Secustik® combines the Secu100® with Secustik® technology. With this, not only is there a high degree of safety when locked, but also an in-built permanent, basic security even when unlocked. For more information about this technology see page 56.

- **Secu200® technology**
  The Secu200® technology prevents the turning and pulling off of the window handle up to a torque of 200 Nm*. For more information about this technology see page 55.

- **SecuSelect® technology**
  SecuSelect® combines the advantages of Secu100® + Secustik® with the additional protection of a lockable rosette. In a break-in attempt, the window itself stays securely locked even if the handle is broken off by force. For more information about this technology see page 57.

* 1 Nm (Newton metre) is equal to the torque resulting from a force of one Newton applied perpendicularly to a lever arm which is 1 metre long.
DIN EN 13126-3 for window handles

The European standard DIN EN 13126 comprises 19 parts relating to hardware for windows and door height windows. Part 3 has been fully revised (February 2012 edition) and uses a 9-digit classification key (see page 45-47) to define requirements and testing procedures for handles, particularly Tilt and Turn, Tilt-First and Turn-Only hardware.

Two categories of use for handles were defined for the first digit of the classification key, taking into account the various quality levels in Europe. The superior grade 2 reflects the tried-and-tested product properties of existing RAL window handles. The seventh digit defines three security grades for lockable window handles. They were designed in such way to match the requirements of the European burglar resistance standard DIN EN 1627.

The European standard DIN EN 13126 does not stipulate any requirements in terms of window handle dimensions. These requirements are defined in DIN 18267 (e.g., square spindle 7 mm, screw fixing distance 43 mm).

The revised DIN EN 13126-3 also forms the basis for the revised quality guideline RAL-GZ 607/9 (September 2012 edition). As a minimum requirement, the window handles must meet grade 2 of category of use and grade 2 or 3 in the security category (see tables on page 43-44). Additionally, RAL-GZ 607/9 uses the following classifications:

- **RAL**
  Window handles with RAL-compatible click mechanism, min. 10,000 tilt and turn cycles, min. 48 h corrosion resistance in salt spray test.

**RAL minimum requirements in accordance with DIN EN 13126-3:**

<table>
<thead>
<tr>
<th>Category of use</th>
<th>Durability</th>
<th>Mass</th>
<th>Fire resistance</th>
<th>Safety in use</th>
<th>Corrosion resistance</th>
<th>Security</th>
<th>Application</th>
<th>Test size</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3/180</td>
<td>–</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0/0</td>
<td>C1</td>
<td>–</td>
</tr>
</tbody>
</table>

- **RAL100**
  Keyed or non-keyed lockable window handle with RAL-compatible click mechanism, min. 10,000 tilt and turn cycles, min. 48 h corrosion resistance in salt spray test, 100 Nm resistance against forceful turning and pulling, non-keyed locking mechanism or keyed locking mechanism with at least 100 possible locking variations.

**RAL100 – minimum classification in accordance with DIN EN 13126-3:**

<table>
<thead>
<tr>
<th>Category of use</th>
<th>Durability</th>
<th>Mass</th>
<th>Fire resistance</th>
<th>Safety in use</th>
<th>Corrosion resistance</th>
<th>Security</th>
<th>Application</th>
<th>Test size</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3/180</td>
<td>–</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2/1*</td>
<td>C1</td>
<td>–</td>
</tr>
<tr>
<td>2</td>
<td>3/180</td>
<td>–</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2/3**</td>
<td>C1</td>
<td>–</td>
</tr>
</tbody>
</table>

* Non-keyed locking mechanism
** Keyed locking mechanism
• **RAL200**

Keyed or non-keyed lockable window handle with RAL-compatible click mechanism, min. 10,000 tilt and turn cycles, min. 48 h corrosion resistance in salt spray test, 200 Nm resistance against forceful turning and pulling, non-keyed locking mechanism or keyed locking mechanism with at least 100 possible locking variations.

### RAL200 – minimum classification in accordance with DIN EN 13126-3:

<table>
<thead>
<tr>
<th>Category of use</th>
<th>Durability</th>
<th>Mass</th>
<th>Fire resistance</th>
<th>Safety in use</th>
<th>Corrosion resistance</th>
<th>Security</th>
<th>Application</th>
<th>Test size</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 3/180</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3/1*</td>
<td>C1</td>
<td>–</td>
</tr>
<tr>
<td>2 3/180</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3/3**</td>
<td>C1</td>
<td>–</td>
</tr>
</tbody>
</table>

* Non-keyed locking mechanism  
** Keyed locking mechanism

Obtaining the RAL Quality Mark requires compliance with the minimum requirements defined in accordance with DIN EN 13126-3, constant internal and external supervision by a recognised test institute. This ensures a consistently high level of quality.

The following pages explain the classification key in DIN EN 13126-3.

**HOPPE window handles with RAL**

HOPPE window handles based on U10, U26 and U34 rosettes and Secustik® US10, US945, US952 and US956 rosettes are tested to DIN EN 13126-3, meet the dimensional requirements of DIN 18267 and fulfil the quality and test specifications of RAL-GZ 607/9.

**HOPPE window handles with RAL100**

The Secu100® and Secu100® + Secustik® lockable window handles meet the dimensional requirements of DIN 18267 and are suitable for use in burglary-resistant windows meeting resistance classes RC1 to RC6 of DIN EN 1627.

**HOPPE window handles with RAL200**

The Secu200® lockable window handles based on U52Z, U945Z and U11Z rosettes meet the dimensional requirements of DIN 18267, are suitable for use in burglary-resistant windows meeting resistance classes RC1 to RC6 of DIN EN 1627 and fulfil the quality and test specifications of RAL-GZ 607/9.
The classification key in DIN EN 13126-3:2012-02

1st digit: **Category of use** (corresponding to the main test parameter)

<table>
<thead>
<tr>
<th>Grade 1</th>
<th>Click torque before and after durability testing</th>
<th>Between-clicks torque (M_c \leq 0.4 \text{ Nm})</th>
<th>Click-out torque (M_s \leq 6.0 \text{ Nm})</th>
<th>Difference (M_d \geq 0.4 \text{ Nm})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Free play perpendicular or parallel to the mounting plane</td>
<td>(\Delta \leq 6 \text{ mm})</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Torsional strength 200 N/85 mm/30 s</td>
<td>Permissible deformation (\Delta \leq 5 \text{ mm})</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tensile strength of spindle joining</td>
<td>(F \geq 100 \text{ N})</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eccentric tensile strength</td>
<td>(F = 600 \text{ N})</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade 2</th>
<th>Click torque before and after durability testing</th>
<th>Between-clicks torque (M_c \leq 0.8 \text{ Nm})</th>
<th>Click-out torque (M_s \leq 4.0 \text{ Nm})</th>
<th>Difference (M_d \geq 0.8 \text{ Nm})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Free play perpendicular or parallel to the mounting plane</td>
<td>(\Delta \leq 4 \text{ mm})</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Torsional strength 200 N/85 mm/30 s</td>
<td>Permissible deformation (\Delta \leq 2 \text{ mm})</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tensile strength of spindle joining</td>
<td>(F \geq 100 \text{ N})</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eccentric tensile strength</td>
<td>(F = 1,200 \text{ N})</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2nd digit: **Durability**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Cycles</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/90</td>
<td>10,000 turn-only cycles</td>
</tr>
<tr>
<td>4/90</td>
<td>15,000 turn-only cycles</td>
</tr>
<tr>
<td>5/90</td>
<td>25,000 turn-only cycles</td>
</tr>
<tr>
<td>3/180</td>
<td>10,000 tilt and turn cycles</td>
</tr>
<tr>
<td>4/180</td>
<td>15,000 tilt and turn cycles</td>
</tr>
<tr>
<td>5/180</td>
<td>25,000 tilt and turn cycles</td>
</tr>
</tbody>
</table>

3rd digit: **Mass**
No requirement according to the main section of EN 13126-1

4th digit: **Fire resistance**
No requirement according to the main section of EN 13126-1

5th digit: **Safety in use**
Grade 1 in accordance with main section of EN 13126-1

6th digit: **Corrosion resistance**
Minimum grade 2 of EN 1670, in accordance with main section of EN 13126-1
7th digit: Security (in accordance with additional test parameters)

- Grade 0: Without security
- Grade 1: 35 Nm resistance against twisting-off and forcing-off
- Grade 2: 100 Nm resistance against twisting-off and forcing-off
- Grade 3: 200 Nm resistance against twisting-off and forcing-off
- Extension 0: No locking mechanism
- Extension 1: Non-keyed locking mechanism
- Extension 2: Keyed locking mechanism with ≤ 99 locking varieties
- Extension 3: Keyed locking mechanism with ≥ 100 locking varieties

This results in the following possible combinations for the 7th digit:

<table>
<thead>
<tr>
<th>Grade Extension</th>
<th>Security Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/0</td>
<td>Without security/without locking mechanism</td>
</tr>
<tr>
<td>1/1</td>
<td>35 Nm resistance against twisting-off and forcing-off/non-keyed locking mechanism</td>
</tr>
<tr>
<td>1/2</td>
<td>35 Nm resistance against twisting-off and forcing-off/keyed locking mechanism with ≤ 99 locking varieties</td>
</tr>
<tr>
<td>1/3</td>
<td>35 Nm resistance against twisting-off and forcing-off/keyed locking mechanism with minimum 100 locking varieties</td>
</tr>
<tr>
<td>2/1</td>
<td>100 Nm resistance against twisting-off and forcing-off/non-keyed locking mechanism</td>
</tr>
<tr>
<td>2/2</td>
<td>100 Nm resistance against twisting-off and forcing-off/keyed locking mechanism with ≤ 99 locking varieties</td>
</tr>
<tr>
<td>2/3</td>
<td>100 Nm resistance against twisting-off and forcing-off/keyed locking mechanism with minimum 100 locking varieties</td>
</tr>
<tr>
<td>3/1</td>
<td>200 Nm resistance against twisting-off and forcing-off/non-keyed locking mechanism</td>
</tr>
<tr>
<td>3/2</td>
<td>200 Nm resistance against twisting-off and forcing-off/keyed locking mechanism with ≤ 99 locking varieties</td>
</tr>
<tr>
<td>3/3</td>
<td>200 Nm resistance against twisting-off and forcing-off/keyed locking mechanism with minimum 100 locking varieties</td>
</tr>
</tbody>
</table>

8th digit: Application

Applicable part of this European standard: Grade 3

- Application N: No click function
- Application C: Click function
- Type 1: Window handle
- Type 2: Geared window handle
This results in the following possible combinations for the 8th digit:

<table>
<thead>
<tr>
<th>3/N1</th>
<th>Part 3/no click function/window handle</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/N2</td>
<td>Part 3/no click function/geared window handle</td>
</tr>
<tr>
<td>3/C1</td>
<td>Part 3/with click function/window handle</td>
</tr>
<tr>
<td>3/C2</td>
<td>Part 3/with click function/geared window handle</td>
</tr>
</tbody>
</table>

9th digit: Test size
No requirement

Example:

<table>
<thead>
<tr>
<th>Category of use</th>
<th>Durability</th>
<th>Mass</th>
<th>Fire resistance</th>
<th>Safety in use</th>
<th>Corrosion resistance</th>
<th>Security</th>
<th>Application</th>
<th>Test size</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3/180</td>
<td>–</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3/3</td>
<td>3/C1</td>
<td>–</td>
</tr>
</tbody>
</table>

Explanation:

1st digit: Handle with category of use grade 2

2nd digit: Tested with 10,000 tilt and turn cycles

3rd digit: No requirements for window mass (not requested)

4th digit: No requirements for fire resistance (not requested)

5th digit: Safety in use grade 1 (only provided as such)

6th digit: Corrosion resistance grade 2 according to DIN EN 1670 (corresponding to 48 h in neutral salt spray test)

7th digit: 200 Nm resistance against twisting-off and forcing off and a keyed locking mechanism with at least 100 locking variations

8th digit: Application as window handle with click mechanism

9th digit: No requirements for window test size (not requested)
Fitting HOPPE window handles

You can fit or remove HOPPE window handles easily as they come with either a full cap or with a turnable, spring-loaded partial cover cap.

**Window handle with full cover cap**

To install the window handle with full cover cap, first turn the handle to the 90-degree position (the handle is now horizontal). Then pull the full cover cap off the rosette via the handle neck and turn it to the side. Both screw connection points above and below the handle are now freely accessible.

**Window handle with partial cover cap**

To install the window handle with partial cover cap, first turn the handle to the 90-degree position (the handle is now horizontal). In contrast to the full cover cap, the partial cover cap does not have to be removed; simply turn it to the side. To do this, lift the partial cover cap slightly.

Please note: The partial cover cap does not need to be lifted in the version with flat rosette; simply turn it to the side. Both screw connection points above and below the handle are now freely accessible.
**Secustik® – The window handle with the built-in security you can hear**

Secustik® window handles contain a patented jamming-device which provides integrated security. This makes it more difficult to move the window fitting unlawfully from outside. It works by a coupling element acting as a sort of mechanical diode. This allows for normal use of the window handle from inside, but jams the handle if anyone tries to turn it from outside by way of the fitting.

As the handle is turned through 180 degrees from the closed position to the tilt position, the jamming-device makes a series of clicks – proof of the **built-in security you can hear**.

**This is how the typical Secustik® clicks are made**

- **Patented blocking mechanism of the Secustik® window handle.**
- As the window handle is turned, the sprung security bolts 1 click as they go over special notches 2 in the housing, indicating the built-in security.
- As the handle is turned, the security bolts 1 are carried by the coupling element 3 to the individual notches 2, producing the clicking sound.

**This is how Secustik® technology helps impede break-ins.**

- As a break-in is attempted, the security bolts 1 are forced into special cut-outs 2 in the housing by a second coupling element 3.
- It’s in this position that the security bolts 1 make it more difficult to turn the window handle from the outside.

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You can find a Secustik® film at [www.hoppe.com](http://www.hoppe.com). If you have any questions please get in touch with your HOPPE contact person.

European Patent **EP 1 121 501**

Secustik®
The perfect fit!
The window handle with VarioFit®

There are many different profile systems available for aluminium, wood and PVC windows, and this stems in no small part from energy saving requirements and safety concerns, as well as design considerations. What is more, these systems also require compatible spindle lengths.

It follows that a range of window handles with different spindle lengths must be held in stock. This is inconvenient and leads to considerable additional logistical and administrative costs.

The product solution from HOPPE

A single window handle for a range of window profiles. With VarioFit®, the adjustable spindle for window handles, you’ll always have the right spindle length for a variety of window profiles already in stock.

The length of the adjustable spindle in the VarioFit® window handle adapts to the depth of the individual window profile, which is enabled by means of a pressure spring fitted on the spindle in the inside of the window handle. Thanks to the spring mechanism, the spindle is pressed smoothly into the square recess of the gear follower, ensuring a perfect fit.

VarioFit® can be installed with an installation depth range of up to 10 mm. It can be installed with ease and flexibility on window profiles of various depths.

The integrated Secustik® technology* makes it difficult to turn the spindle and, consequently, move the window fitting from outside. Naturally, the Secustik® window handle with VarioFit® has been tested to RAL.

Compared to the current window handles with fixed spindle lengths, the Secustik® window handle with VarioFit® reduces the number of variants considerably. The associated cost saving potential from the reduction in complexity is clear to see.

* Window handles with Secustik® technology feature a patented locking mechanism to protect against unauthorised movement of the window fitting and turning of the spindle from outside.
The Secustik® window handle with VarioFit® advantages at a glance:

- Flexible use on windows with various profile cross sections thanks to pressure spring integrated into the handle neck
- Patented smooth adjustment to the depth of the individual window profile
- Length adjustable up to 10 mm
- Also available with lockable window handles
- Window handle contains patented lock mechanism that uses tried-and-tested Secustik® technology
- Great potential for savings on storage and logistical costs
- 10-year operational guarantee on mechanical operation
- Brand quality, tested to RAL

VarioFit® is supplied as a standard in the 32–42 mm version (projecting spindle length), complete with 2 pairs of screws. Additional spindle length ranges are available upon request.
The lockable window handles with TBT operation

Lockable TBT (Tilt Before Turn) window handles are being increasingly used in public buildings and places such as schools, kindergartens, clinics or retirement homes to prevent unauthorised opening from inside.

The TBT technology enables the handle to be locked in the tilted position (90°) with a key. The further moving of the handle to the opening position (180°) is then only possible once it has been unlocked again.

Important:
The TBT operation is only assured if the window and the handle feature TBT technology.

HOPPE window handles with TBT operation:
HOPPE window handles are manufactured in the versions of TBT1 and SecuTBT®. The way they technically differ, is described below:

TBT1 window handles
The TBT1 models are equipped with freewheel between the locked and tilted positions, meaning that, although unlocking of the cylinder is not necessary, ventilation can occur. In the 90° tilted position, a blocking mechanism comes into operation so that turning the handle further to the 180° opening position is only possible once the cylinder has been unlocked.
SecuTBT® window handles

HOPPE’s SecuTBT® function is a further development of the conventional TBT technology. It ensures ease and greater security for windows:

In the locked position (0°), a HOPPE window handle with the SecuTBT® function can be locked with a key and gives additional security, helping to prevent break-ins. Only when unlocked (by turning the key) can the handle be moved to the 90° tilted position.

When the window handle is turned to the tilted position, unlike the conventional TBT technology, it automatically locks in the 90° position, without the key having to be used! Turning it back to the locked position (0°) is also possible without unlocking it with the key.

In order to be able to turn the window handle from the tilted to the opening position (180°), a “two-hand operation” is necessary: it is only when the key and the handle are turned at the same time that unlocking is possible and the window handle can be turned to the opening position. It is in this way that the window handle is protected against unlawful or unintentional turning to the opening position.

If the HOPPE SecuTBT® window handle is in the opening position and needs to be turned to the tilted position, this is possible without unlocking. The automatic blocking mechanism comes into operation in the tilted position, too, which securely locks the handle without the need to use the key. However, it can be turned further to the locked position but no longer back to the opening position. This is only possible by using two hands as mentioned.

In short: a high degree of security is provided where it is needed and easier operation where it is possible – advantages which play an important role in public buildings.

All window handles with Secu-Select® (see page 53) are also available with SecuTBT® operation.
SecuDuplex® – The window handle with innovative double function

The SecuDuplex® window handle connects the push-to-open technology with a locking cylinder. The two functions combined – that’s the innovative double function technology developed by HOPPE.

“Normal” lockable window handle:
With a normal lockable window handle, the handle can be moved when the locking cylinder is unlocked by the key. If the locking cylinder is pressed in the closed or 180° tilt position, the window handle remains locked.

SecuDuplex® window handle with innovative double function:
With the SecuDuplex® window handle and its double function, the handle can only be moved when the push button locking cylinder is unlocked and then pressed when turning. This means, once unlocked with the key, the handle can only be moved by pressing the push button locking cylinder, too. If the push button locking cylinder is not pressed, the handle remains locked in the 0° closed or 180° tilt position.

- Moving the window hardware and turning the spindle from the outside is made more difficult by automatic locking (push-to-open technology) – even when the window is not locked.
- Locking the window handle by key prevents the unwarranted moving of the handle from inside, and attempted break-in from outside is made considerably more difficult.

Unlock, keep pressed, turn!
Secure and easy to use –
Window handles with Secu100® or Secu200®

Lockable window handles with Secu100® or Secu200® technology offer excellent mechanical protection against break-ins. Secu100® can resist a forceful turning and pulling of the locked window handle up to an applied force of 100 Nm, while Secu200® handles can even withstand a force of 200 Nm. Lockable window handles (with the key removed) can at the same time act as an effective child safety device.

The closed or tilted window can be locked quickly and easily “at the touch of the button” on the lock, while the large keyed-alike reversible key also offers enhanced ease of use.

The appealing and successful handle designs additionally offer an attractive benefit/price ratio. Different locking varieties are available on request.

Comparison of the advantages:

• **Secu100® – Standard for performance, security and ease of use**
  - When used with the appropriate windows the handles meet the requirements of the European standard DIN EN 1627-1630 (resistance classes RC 1-6) so they can be sold throughout the European Union
  - Certified according to RAL100
  - The lockable window handle is able to resist a turning and pulling up to an applied force of 100 Nm*

• **Secu200® – Twice the performance, twice the security, same ease of use**
  - When used with the appropriate windows the handles meet the requirements of the European standard DIN EN 1627-1630 (resistance classes RC 1-6) and DIN EN 13126-3 so they can be sold throughout the European Union
  - Certified according to RAL200
  - The lockable window handle is able to resist a turning and pulling up to an applied force of 200 Nm*

The technology resists **turning** or **pulling** of the window-handle by force from the rose up to **100 Nm for Secu100®** and up to **200 Nm for Secu200®**.

* 1 Nm (newton metre) is the torque produced at the fulcrum by a force of 1 N with a lever of 1 m.
Secu100® + Secustik®

Secu100® + Secustik® =
The standard for ease and built-in security you can hear

The Secu100® + Secustik® window handle combines the technology of the Secu100® and Secustik®. This not only creates a high standard of mechanical safety when locked, but also a permanent basic security when not locked. This means that:

The Secu100® technology resists to 100 Nm of forceful turning or pulling the window handle off the rosette.

It is the Secustik® technology which helps impede unlawful tampering of the window handle from outside by an integrated blocking mechanism. The clicking sound is the audible sign of greater basic security.

Secu100® + Secustik® advantages at a glance:
- The handles meet the requirements of the European standard DIN EN 1627-1630 so they can be sold throughout the European Union
- They also meet the requirements of all resistance classes RC 1-6, when used with the appropriate window
- The appealing and successful handle designs additionally offer an attractive benefit/price ratio
- Certified according to RAL100
Security and Design – window handles with SecuSelect®

SecuSelect® combines several effective break-in protection technologies:

- **Secu100® + Secustik® technology**: The Secu100® technology prevents the turning and pulling off of the window handle up to a torque of 100 Nm. The patented blocking mechanism of Secustik® makes it difficult for unauthorised persons to move the hardware from the outside – even if the window handle is not locked!
- **Lockable rosette**: The locking mechanism for the window handle is in the rosette body instead of in the handle itself. Even if the handle is broken off the rosette in case a force of more than 100 Nm is applied, the rosette remains firmly attached to the window profile and keeps the window securely locked.

Many design options thanks to Quick-Fit

Because of the use of HOPPE-Quick-Fit there are many individual design options. Every Quick-Fit handle from the interior door range can be combined with SecuSelect®. Additionally, the handle can be fitted with a downward or upward-facing cylinder.

SecuSelect® advantages at a glance:

- With **Secu100® + Secustik®**: high mechanical security when locked and constant basic security when unlocked
- Even greater stability and hardly any chance of a break-in as the cylinder is located in the rosette instead of the handle
- Many individual design options with HOPPE-Quick-Fit handles, also from the interior door range
- Easy to operate thanks to variable positioning of the cylinder and use of an extra-large reversible key
- Quick and easy locking of closed and tilted windows by simply pushing down the cylinder
- Meets the requirements of the European standard DIN EN 1627-1630 so they can be sold throughout the European Union
- Meets the requirements of all resistance classes RC 1-6 when used with a suitable window unit
- Also available with **SecuTBT®**
You can find other reference buildings on our internet site at www.hoppe.com.
The HOPPE Group

In 1952, Friedrich Hoppe founded a company for the manufacture of door hardware in Heiligenhaus near Düsseldorf, the former heartland of Germany’s lock and hardware industry. In 1954 he moved the business to Stadtallendorf (north of Frankfurt) and in so doing laid the foundation for continual growth.

Today, the HOPPE Group, an internationally active company with its headquarters in Switzerland, is led by Wolf Hoppe and Christoph Hoppe in its second generation.

With around 3,000 people it employs in seven plants in Europe and the USA as well as its international marketing, the owner-run HOPPE family business is the European leader in the development, manufacture and marketing of hardware systems for doors and windows.

In fairness to employees, customers, suppliers and the regions in which HOPPE is located, the company pursues the principle of profitability before turnover. The following beliefs make the HOPPE Group what it is today:

“Creativity is intelligent thinking against the norm”, the result being: “Different from and better than others”.

Enjoy the feel of quality. Indeed, touching a quality handle reassures you that you have made the right choice. Hardware with this logo is a brand-name product, which, in our view, is tantamount to a promise of quality.

All production plants of the HOPPE Group in Germany, Italy and the Czech Republic are certified in accordance with DIN EN ISO 9001:2008. Continuous striving for improvement in quality remains a permanent process.

HOPPE is aware that simply manufacturing a faultless product is not sufficient today. Among the important criteria HOPPE considers, are efficient manufacturing to quality standards, complying with current regulations, short product life-cycles and, above all, close attention to customer requirements.

The Product Range

For everyone who wants to upgrade their surroundings, HOPPE, Europe’s leading brand of door and window handles, can fit in with any personal living and furniture style. With high quality and fair price, our products enhance everyone’s choice of interior decor. There is something for every situation in the extensive product range. HOPPE products are tradesman’s first choice.

HOPPE not only offers a wide range of attractive handles for doors and windows but also develops specific solutions. Thus a building or an apartment can be equipped with the “Handle of Excellence” from the representative entrance door to the interior doors and windows and, what is more, in a choice of materials such as aluminium, stainless steel, nylon or brass.

The Environment

At HOPPE, consideration for the environment is of “constitutional” importance. Some examples are:

- the manufacture of hardware in an environmentally-considerate way
- the recycling of waste-water and the use of a circulatory system for water required in manufacture
- environmentally-considerate packaging material
- the use of recyclable scrap in the internal raw material cycle
- the use of process heat
- the generation of alternative energy
- energy efficiency measures
- membership of the Hesse State Environmental Alliance

All production facilities of the HOPPE Group in Germany, Italy and the Czech Republic are certified to DIN EN ISO 14001:2009 (Environmental Management System). Since 2014, HOPPE AG, Stadtallendorf, is certified to DIN EN ISO 50001:2011 (Energy Management System).
The Beneficial Performance offered by HOPPE to customers

The Total Beneficial Advantage for customers
Advantages which pay!

In addition to what you would normally expect, HOPPE offers more:

You will benefit from a cooperation between partners which is based on values. So you will gain from the commitment of our employees, whose motivation is based on and supported/strengthened by the value-based and purpose-oriented company leadership. By actively living the values on a daily basis, we are also able to assume our social responsibility.

You will stand out as a competent market partner with products „Made by HOPPE“ in the distribution chain against competitors who sell cheap, no-name products.

You will raise the efficiency of your sales activities and increase your profits in the long term by benefiting from focused sales and marketing concepts developed in cooperation with HOPPE. You will be able to build up a long-term, sustainable business relationship with us through a trusting partnership in the market.

You will benefit from HOPPE’s international structure (locations, costs, assured delivery, numerous home markets) not only in purchasing but also in sales.

You will be able to decrease your stock costs with the help of our binding, high on-time delivery for those ranges with set lead times. Even more savings potential can be provided by the integration between our respective systems.

You will be making an active contribution to the environment by using HOPPE products. Consideration for the environment is of “constitutional” importance at HOPPE, and indeed on a daily basis.

You will be able to solve your customers’ problems through products appropriate for the target groups that correspond to the current state of the art.

You will benefit from HOPPE’s innovation leadership. Ongoing technical and conceptual innovations will enable you to be an attractive business partner for your customers.

You will benefit profitably from business with HOPPE because of the attractive benefit/price ratio. Be careful not to be misled by comparing the margin of HOPPE products with the average margin of the distributor, since this does not take into account the actual processing costs and quantity effects.

You will enjoy increased trust in the eyes of your customers by your offering consistently good, appropriate brand-quality products at various price levels. You will be actively supported by the relevant standards and testing requirements met, as a matter of course, as well as the guarantees granted by HOPPE which exceed such standards by far.
How to recognise original HOPPE products

The HOPPE logo is the visible sign of the manufacturer and thereby an important factor in product liability. Should there be any problem, you can always turn to the manufacturer, unlike with "no name products".

On door handle sets, you will find the HOPPE logo on:
- the exterior side of the backplates and roses
- the rear side of the die cast plates
- the HOPPE profile spindle

On window handle sets, you will find the HOPPE logo on:
- the cover cap (if there is no customer logo)
- the rose
- the notch ring
- the key
- the rear side of the handle neck (of lockable window handles)

It is not only the HOPPE logo, but the grips and the HOPPE Quick-Fit connection too, which give you the assurance of having a genuine HOPPE product.