Save energy easy with winter heat protection

When it comes to heat insulation, fabrics with a low-e coating are effective. Aluminium vapour coated fabrics with a silver look reflect long-wave heat radiation and keep heat in the room, even during winter. The lower the coating’s emissions level, the more effective its insulating effect.

Retain energy in the room

The degree of emission indicates how much heat radiation is emitted. The fabrics presented here have, at 0.17, an especially low emissions level. They reflect heat energy back into the room. Temperature variations at the glazing can thus be effectively balanced out for a consistent comfortable room temperature.

The optimum solution

The right thermal protection can increase the insulation performance of common windows by over 30% and even up to 50% for older windows and thus is a very simple option for sustainably reducing energy costs. The heat transmission coefficient (U value) describes the heat flow per area and the difference in temperature.

Energy-efficient designs

With the WAREMA fabrics for winter thermal protection, you can create a consistently comfortable room climate. Furthermore, they offer an optimal balance between glare control and visual privacy – always with the necessary view outside. The efficient use of daylight for lighting and as a supplier of energy thus ensures excellent interior comfort and lower electricity and heating costs.

Improvement in heat insulation

With sun shading system and double heat protection glazing

<table>
<thead>
<tr>
<th>Description</th>
<th>U value</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>common, uncoated design, ε = 0.90</td>
<td></td>
<td>31%</td>
</tr>
<tr>
<td>Design with aluminium vapour coating, ε = 0.41</td>
<td></td>
<td>41%</td>
</tr>
<tr>
<td>Screen fabric with aluminium vapour coating, ε = 0.17</td>
<td></td>
<td>55%</td>
</tr>
</tbody>
</table>

Heat transmission coefficient improvement in connection with double glazing from the 1970s (existing buildings Ug=2.8 W/m²K)

Heat transmission coefficient improvement in connection with a common heat and sun shading glazing (Ug=1.13 W/m²K)

The heat insulating effect is calculated with a tightly closing roller blind with guide rails while taking very weak ventilation into consideration.

Source: Test report ZAE
Winter heat protection

Manufacturer's data according to DIN EN 410

The photometric data are recorded by reputable institutes and are considered to be standard values. Tolerances in the measurement procedure and batch-related variations from the samples can lead to deviations in the determined values, for which we cannot assume liability.

### Colour chart

<table>
<thead>
<tr>
<th>Design</th>
<th>Light reflectance in %</th>
<th>Light transmission in %</th>
<th>Solar reflectance in %</th>
<th>Solar transmission in %</th>
<th>Solar absorptance in %</th>
<th>Colour rendering index R</th>
<th>Care instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>44470</td>
<td>White 79 4 17 71 4 25</td>
<td>Silver 83 4 13 83 4 13</td>
<td>44471</td>
<td>White-Beige 69 4 27 63 4 33</td>
<td>Silver 83 4 13 83 4 13</td>
<td>44472</td>
<td>White-Grey 52 4 44 48 4 48</td>
</tr>
<tr>
<td>44473</td>
<td>Light grey 39 4 57 37 4 59</td>
<td>Silver 83 4 13 83 4 13</td>
<td>44474</td>
<td>Beige-Black 13 3 84 12 4 84</td>
<td>Silver 83 3 14 83 4 13</td>
<td>44475</td>
<td>Grey-Black 9 3 88 9 4 87</td>
</tr>
<tr>
<td>44476</td>
<td>Light grey 39 4 57 37 4 59</td>
<td>Silver 83 4 13 83 4 13</td>
<td>44477</td>
<td>Black 5 3 92 5 4 91</td>
<td>Silver 83 3 14 83 4 13</td>
<td>44478</td>
<td>Black 5 3 92 5 4 91</td>
</tr>
</tbody>
</table>

### Picto Description
- Can be brushed or vacuumed off a flat surface
- Wipe with a moist cloth

### Instructions
- Can be brushed or vacuumed off a flat surface
- Wipe with a moist cloth
- Clean with mild detergent solution at max. 30°C (do not machine wash)

*Manufacturer's data according to DIN EN 410*

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*In the case of two-tone designs please observe which colour is outside!*

Valid from 01.01.2019