



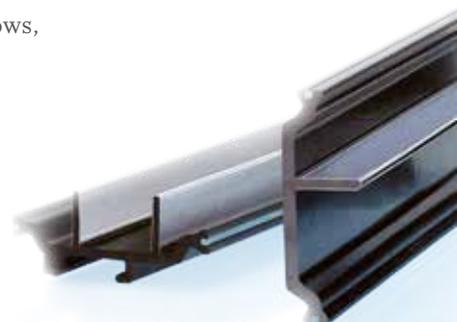
*insulbar® insulating profile with Low-E film –
the simple alternative to foam*



The Low-E film *optimally reflects heat radiation*

insulbar stands for perfect thermal separation of metal profiles. Ensinger offers a simple and efficient solution which further reduces heat losses: the Low-E film from insulbar. The insulating profile with Low-E film 12 ε 3 saves energy, reduces costs and makes processing easier.

High-reflectance Low-E film allows significant further improvement to the thermal properties of all insulbar profiles with flag, and consequently to the U_f values of metal windows, doors and facades.



The Low-E film from insulbar makes the difference

High degree of reflection – for top level insulation

The wafer-thin Low-E film applied on the flag transversely to the direction of thermal conduction reduces losses due to thermal radiation to a minimum and achieves an impressive emission level of $\epsilon = 0,03$ in compliance with EN 12898 and EN ISO 10456 – as confirmed by a test certificate from ift Rosenheim.

Thermal resistance permits coating of the assembled unit

The Low-E film from insulbar is heat-resistant up to 200 °C, withstands this temperature for up to 20 minutes, and hence also permits, unlike the foams, powder coating in the assembly. Standard anodizing processes at temperatures up to 100 °C are naturally also possible.

Processing convenience and economy

With the Low-E film, insulating profiles with flags can be optimised without changing the geometry and therefore without additional development or tool costs. The insulating bars are delivered already film coated and can be further processed directly without the need for any additional work steps such as cutting or separate insertion of foam fillers. The benefits:

- Easier, faster production
- Increased productivity
- A more reliable work process
- Simplified logistics
- No health hazard due to fine dust

Individual – no two tasks are alike

To meet different individual requirements, the Low-E film from insulbar is available in different designs and combinations. Because all insulbar standard or hollow chamber profiles with flag can be coated with Low-E film in all customary profile lengths.

Excellent U_f values – without the foam

Where particularly stringent demands are made on the U_f value, there was previously no alternative to window and door systems using insulating foam. But with the Low-E film, systems manufacturers and processors now have the possibility of confidently achieving the specified values without the use of additional foams.

**What are
your requirements?
We are at your
service – with
competent, friendly
and personal
help and advice.**



insulbar Germany

Ensinger GmbH
Rudolf-Diesel-Straße 8
71154 Nufringen
Tel. +49 7032 819 0
Fax +49 7032 819 270
insulbar@ensingerplastics.com

Ensinger GmbH
Wilfried-Ensinger-Straße 1
93413 Cham
Tel. +49 9971 396 0
Fax +49 9971 396 570
insulbar@ensingerplastics.com

insulbar worldwide

France
Ensinger France S.A.R.L.
Rue des Petites Combes
ZAC des Batterses
01700 Beynost
Tel. +33 4 78 55 36 35
Fax +33 4 78 55 68 41
contact@ensinger.fr

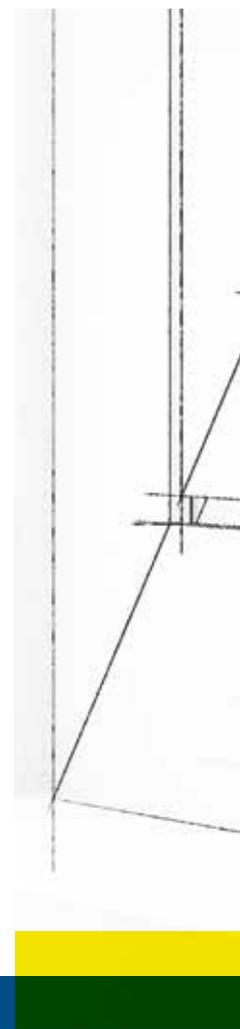
Italy
Ensinger Italia S.R.L.
Via Franco Tosi 1/3
20020 Olcella di Busto Garolfo
Tel. +39 0331 562 111
Fax +39 0331 567 822
insulbar.it@ensingerplastics.com

Spain
Ensinger S.A.
Girona, 21-27
08120 La Llagosta
Tel. +34 935 74 57 26
Fax +34 935 74 27 30
insulbar@ensinger.es

United Kingdom
Ensinger Building Products Ltd.
Wilfried Way
Tonyrefail
Mid Glamorgan
CF39 8JQ
Tel. +44 1443 678 400
Fax +44 1443 671 153
ebp-uk@ensingerplastics.com

China
Ensinger (China) Co., Ltd.
1F, Building A3
No. 1528 Gumei Road
Shanghai 200233
Tel. +86 21 522 851 11
Fax +86 21 522 852 22
info@ensinger-china.com

USA
Ensinger Inc.
1 Main St.
Grenloch, NJ 08032
Tel. +1 856 227 0500
Fax +1 856 232 1754
insulbar@ensingerusa.com



Ensinger®, TECA®, insulbar® and TECATHERM® are registered trademarks of Ensinger GmbH.