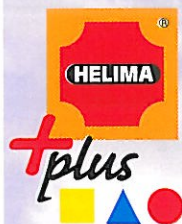


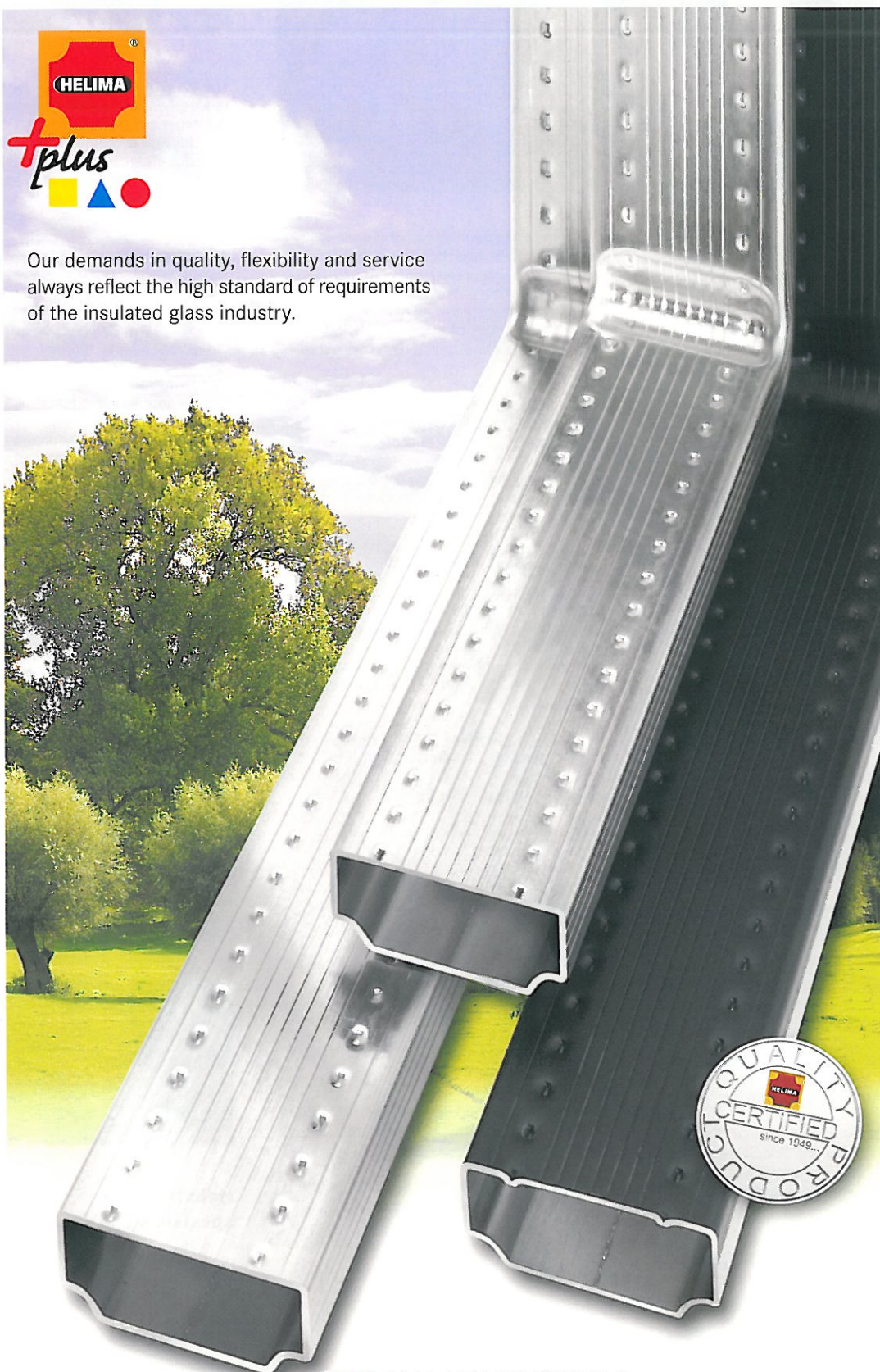
HELIMA

APPLICATION ORIENTATED QUALITY SOLUTIONS ON A
MAXIMUM LEVEL FOR THE GLAZING TECHNOLOGY

SPACER



Our demands in quality, flexibility and service
always reflect the high standard of requirements
of the insulated glass industry.



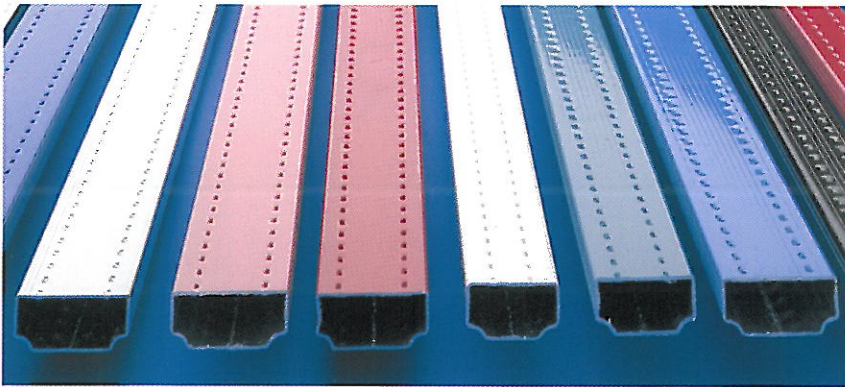
Lingemann-Gruppe

HELIMA

QUALITY • FLEXIBILITY • SERVICE

SPACER / DUPLEX

hf-welded, with sightline needs, double-row perforated, elements for insulating glass profiles



Profile Optimization

by optimal cross section, meets the requirements of modern window technology in all respects. Spacer Bar Systems

- System S – standard design for optimum processing, which meets the requirements of modern insulating glass technology
- System B – spacer bars purposefully designed for special requirements
- System E – spacer bars for the corner key method
- System F – colour coated spacer bars processed to fulfill all requirements
- System W – annealed spacer bar for model panes

Quality Standard

The spacer bar and Duplex profiles are manufactured to internal guidelines and to international DIN NORM requirements, to safeguard the quality.

- Aluminium alloy material according to EN – AW 3000 ff
- Profile dimension, form, length and saw cut quality (dimensions, form and straightness according to DIN EN 1279 – 6) are inspected by means of special digital measuring devices and the with the aid of the statistical computer quality system (SPC)
- Surface condition / adhesion test (spacer bar – spacer bar – test specimen according to DIN EN 1279 – 6, appendix F) with customary sealant types (PS/PU)
- The bendability is also realized by using selective material specifications and by controlling the process parameters accordingly
- Perforation holes (diffusion holes) for pre- and post filling with desiccant. Special requirements for the absorption of the condensation water, as well as the dew point temperature after 24 hours

- Seam weld specification and bendability (unwanted holes and bending strength according to DIN EN 1279-6, appendix H) are checked by means of Eddy Current devices, which are integrated in all mills to avoid unwanted sources of error. The NORM requirements are excelled by far with this technology

- Fogging inspections according to DIN EN 1279 – appendix C for all products and system components

- All packaging and labelling from the incoming material to the outgoing finished product are bar coded

- Connectors are according to DIN EN 1279-6

In addition to this there are the requirements for our coil coating process, the mechanical technological properties of the paint to safeguard the application and of course for the usage on the bending robots for spacer bars.

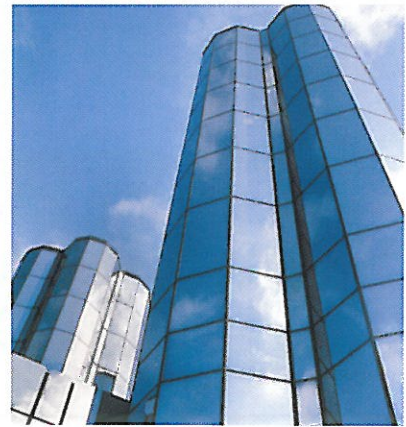
- Adhesion according to the formability of the film coating /T – Bend – Test (ECCA T7)
- Cross-Cut test (DIN 53151)
- Degree of cross linking of chemical interlaced lacquer systems (MEK)

Colour properties :

- Coating thickness (ECCA T1)
- Mirror finish (ECCA T2) in the specifications 10 = matt until 80 = high gloss
- Colour consistency according to Lab – Hunter (ECCA T3)

Other properties :

- for an excellent adhesion of the spacer bar to the sealed unit the butyl area must be colour free
- to avoid any fogging the baking temperature must be approx. 240 degrees celsius



The implementation of our set product requirements are additionally realized through the experience of our application engineers. Our delivery programme is adapted to serve all requirements of the insulating glass industry. We cover all sizes required by the global market and also have a variety of lengths and packaging possibilities, such as :

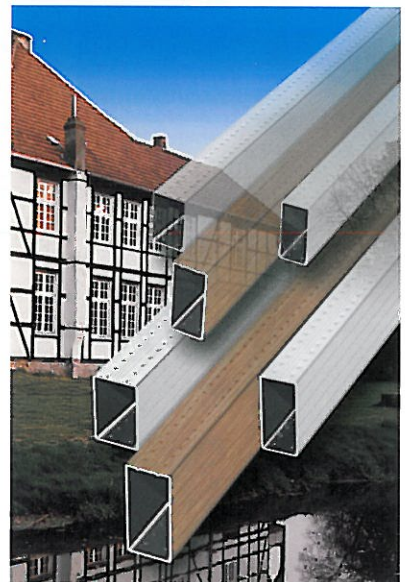
- lengths 5/6/7 metres
- Container/carton box/case packaging
- The internal packaging can be either collared or layed in a loose manner

This large variety meets the demands of a leading supplier, who fulfills all requirements.

Our highly modern production technology assures for our renowned delivery flexibility.

DUPLEX

Our Duplex system, which over the years has developed into an important component within our programme, offers an economical solution for multi-paned windows. Duplex comes of course in all standard colours



**Helima....
specialized profiles**



Lingemann-Gruppe

HELIMA
Profilierte Lösungen

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