HIGH PERFORMANCE **SEALING** SOLUTIONS

FOR **PVC** WINDOWS AND DOORS

Schlegel

TYMAN group

Q-LON

Polyurethane foam seals

The unique Q-LON seal is made from a special polyurethane foam, contained in a weather resistant polyethylene liner.

Film

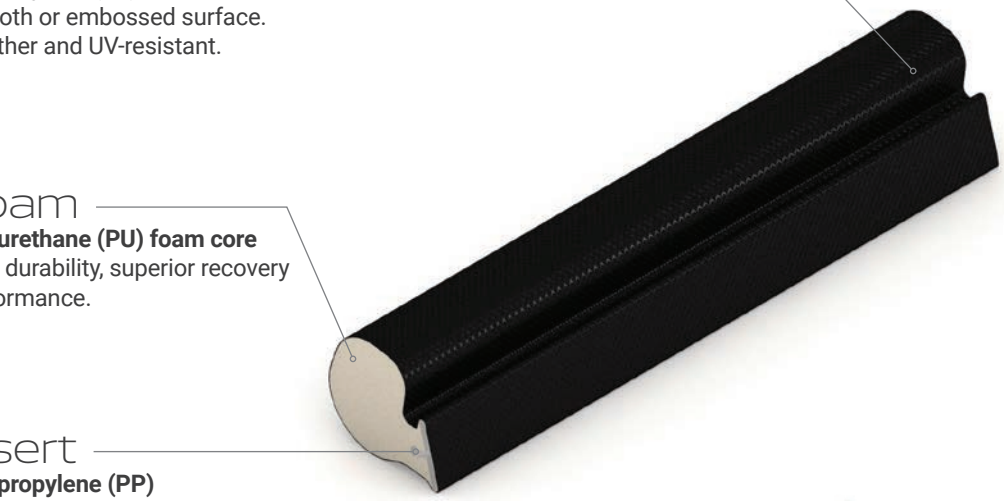
Polyethylene (PE) film
Smooth or embossed surface.
Weather and UV-resistant.

Foam

Polyurethane (PU) foam core
High durability, superior recovery performance.

Insert

Polypropylene (PP)
or with glass fibre cord
Prevents elongation and shrinkage.

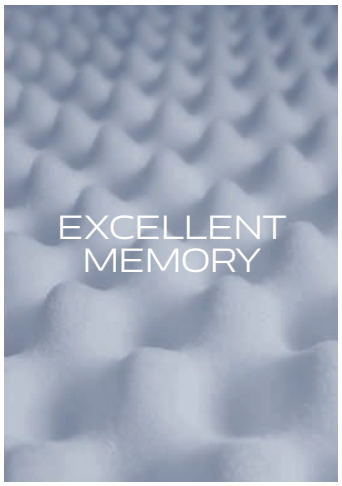


Standard Colours

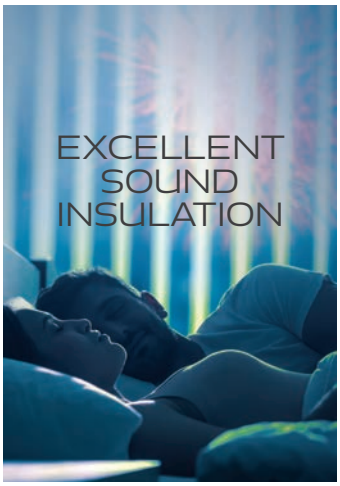
RAL 9003 Code 222	RAL 7001 Code 212	RAL 8019 Code 220	RAL 9005 Code 223

Extra Colours

RAL 1001 Code 211	RAL 8003 Code 217	RAL 8007 Code 218	RAL 9010 Code 221	RAL 7035 Code 215	RAL 7032 Code 252	RAL 7024 Code 214

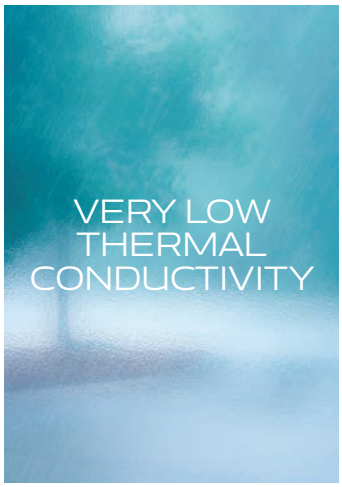


The original formulation of Q-LON enables it to return to its original shape after being compressed **up to 50% more than other extruded seals**, even at extremely low temperatures.[1]

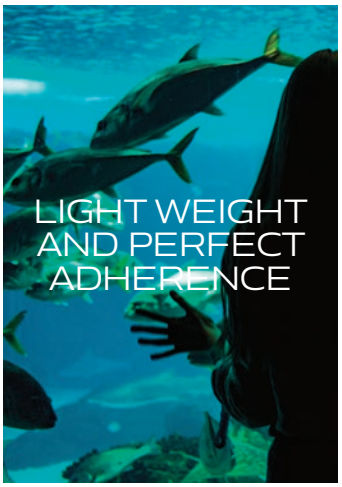


Exceptional acoustic insulation performance thanks to high compression ability. **Up to 4 dB noise reduction compared with extruded seals**.[2]

The external polyethylene film is not altered by paints, detergents or dyes. Its high resistance to atmospheric conditions and UV radiation ensures that **Q-LON lasts three times longer than the most common foam seals**.[3]



Q-LON polyurethane seals offer the lowest thermal conductivity on the market (0.04 W/m•K at 0°C), **3 to 6 times better than other materials**.[4]



Thanks to the characteristic softness and adaptability of Q-LON, windows require a **low compression force when closing**. Q-LON provides a tight seal after the window is altered by temperature fluctuations or ageing.

Seals classified to EN 13501-1, Class E, designed to reduce the spread of fire when in contact with it, slowing the speed of flames and avoiding the dispersion of flammable material.

[1] Test performed in accordance with classification E 12365 on a selection of Q-LON seals compared with extruded seals
[2] Test performed to UNI EN ISO 10140-2 on a selection of Q-LON seals compared with extruded seals.
[3] Accelerated ageing test performed according to DIN EN ISO 4892-2 on a selection of Q-LON and other seals on the market.
[4] Test performed in accordance with EN 12667:2001 standard in comparison with extruded gaskets

Comparative testing

Air Permeability

Q-LON
seals initial test

0.8

m3/m/hr - air leakage - at 600 Pa

EPDM
seals initial test

7.4

m3/m/hr - air leakage - at 600 Pa

EPDM seals provided significantly less effective proofing against draughts during the initial test, and they also experienced a drastic drop-off after 10,000 operations: **they were 28% less effective after the repeat test**. **Q-LON** performed significantly better for air permeability during the initial test, but it also continued to provide an effective seal, even after 10,000 full operations of the window.
After the repeat test, the performance variance was just 2.33%.

Initial and repeat test in accordance with BS 6375-1 under UKAS accredited conditions. 10,000 full cycles of operation before the repeat test in accordance with BS 6375-2.

Acoustic insulation

Q-LON
Double glazed unit

R_W 36dB

EPDM
Double glazed unit

R_W 23dB

The Weighted Sound Reduction Index (Rw) rates the effectiveness of a soundproofing material. Increasing the Rw by one equates to 1dB in noise reduction. **Q-LON equipped windows proved able to reduce outside noise by 13 decibels** when compared to EPDM seals mounted on the same window.

Test conducted in accordance with BS EN ISO 10140-2, under UKAS accredited conditions.

Water tightness

Q-LON
seals after repeat test

NO LEAKS

even at 600 Pa

EPDM
seals after repeat test

LEAKS
AFTER 12 SECONDS

at 400 Pa

EPDM performed well initially, but its effectiveness was degraded significantly following the cycle test, indicating that **water tightness will decrease with time**.
Q-LON was proven to provide the same level of performance throughout a the service life of a window, thus **it is suitable for windows requiring exceptionally high weather resistance**.

Initial and repeat test in accordance with BS 6375-1 under UKAS accredited conditions.
10,000 full cycles of operation before the repeat test in accordance with BS 6375-2.

Compression recovery

Q-LON
seals

-10°	20°
99.5%	98.3%

EPDM
seals

-10°	20°
89.1%	82.5%

This is a measure of the ability of a seal to recover its original dimensions following a period of compression under extreme temperature conditions. In this test, seals were compressed to 50% for seven days and then given 24 hours to recover.
The numbers expressed above are the percentages by which the seals had reverted to their original dimensions after the 24-hour period elapsed. **Q-LON recovers over 10% more** when compared to EPDM seals, even at frigidly cold temperatures, thus continuing to perform effectively over an extended lifetime.

Brush pile seals

Seals made from virgin polypropylene (PP) yarn.

- Available in many different widths and heights
- Different densities depending on seal type, width and mounting distance
- Heat setting for recovery after compression
- With optional adhesive backing based on hot-melt (HM) glue technology

Fins
Central and lateral fins,
for increased air permeability performance

Multifilament
Standard soft multifilament yarn

Trilobal PP-yarn
PP yarn treated with silicone to resist water, mould and mildew.

Standard Colours Monofilament

RAL 7045 Code 277	RAL 9005 Code 223	-

Standard Colours Monofilament

RAL 1011 Code 241	RAL 1032 Code 292	RAL 7045 Code 277	RAL 8025 Code 291	RAL 8028 Code 264	RAL 9003 Code 222	RAL 9005 Code 223	RAL 7032 Code 252

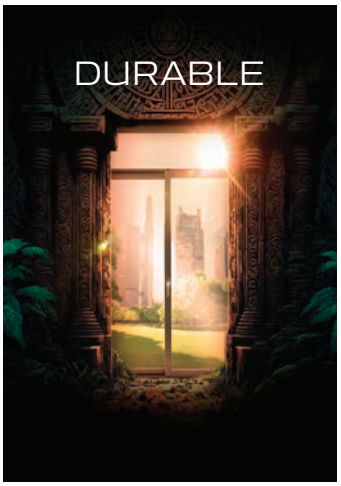
Extra Colours Multifilament

RAL 1015 Code 266	RAL 7011 Code 240	RAL 8008 Code 244	RAL 8014 Code 281

Schlegel

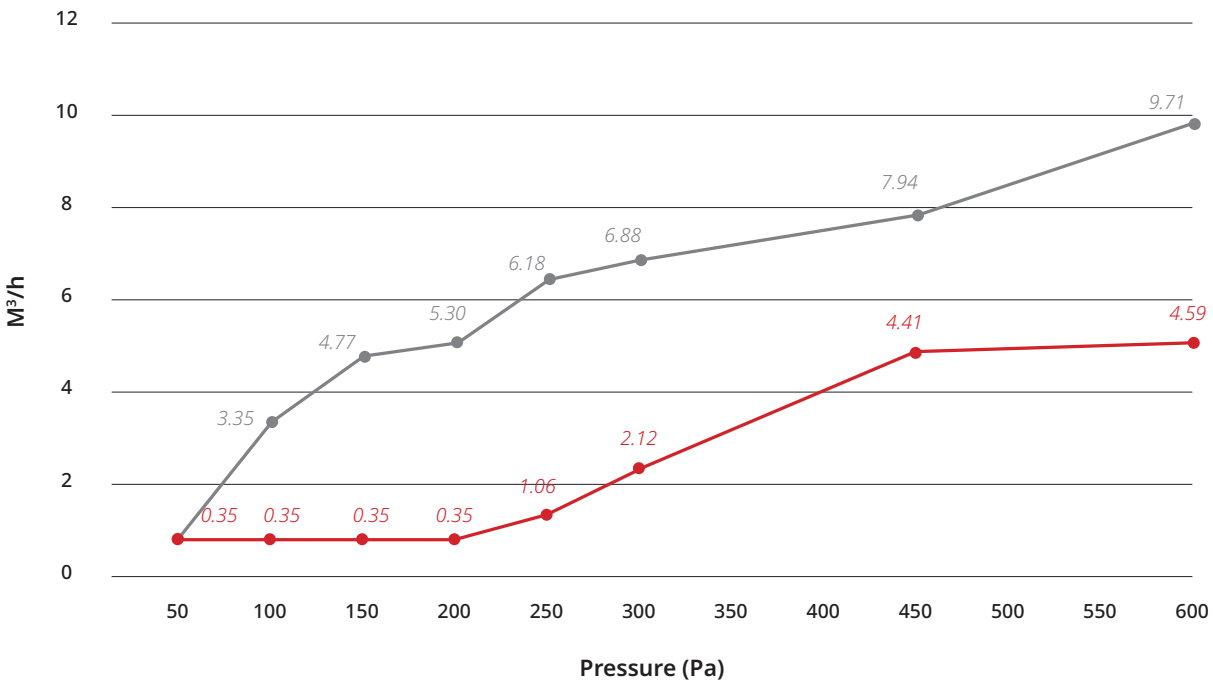
Excellent resistance to abrasion and static build-up and low friction for improved sliding performance.

The central and lateral fins offer better air tightness.



UV stable and chemically inert for prolonged life.

Comparative air Permeability test



Competitor	**Schlegel G3-QF (Quadrafin)**
Brush Pile with central fin +0.5 mm with 20% compression.	Brush Pile with central fin +1 mm with 20% compression

Comparative test carried out on one linear meter brushpile weatherstripping following the pressure increments according to EN 12207

Extruded seals

Schlegel extruded seals are made from various extruded materials and can be combined with foam seals.

- Schlegel extruded seals come in three different densities and materials, which can be mixed and matched for optimal performance.
- Lozaron TPE extruded profiles without foam (LT)
- Polypropylene (LP) and PVC (LV) extrusions
- Lozaron TPE extrusions with flexible microcell foam (LF)

Standard Colours

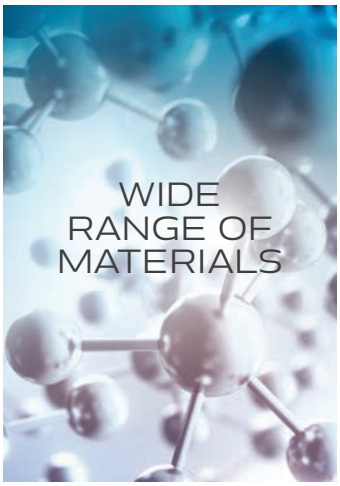
RAL 8019 Code 285	RAL 9003 Code 287	RAL 8019 Code 288

Extra Colours

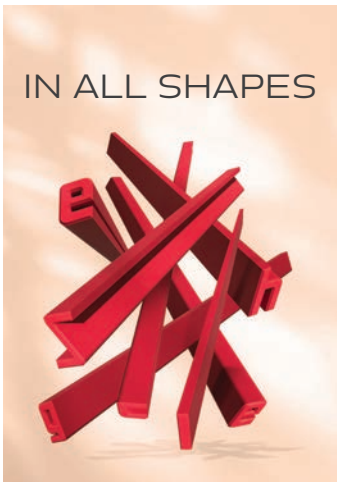
RAL - Code 200	RAL 9018 Code 265	RAL 9011 Code 268	RAL 1001 Code 270	RAL 7001 Code 274	RAL 7024 Code 273
RAL 7032 Code 274	RAL 7035 Code 275	RAL 7037 Code 276	RAL 8001 Code 278	RAL 8015 Code 282	RAL 8017 Code 284

Schlegel

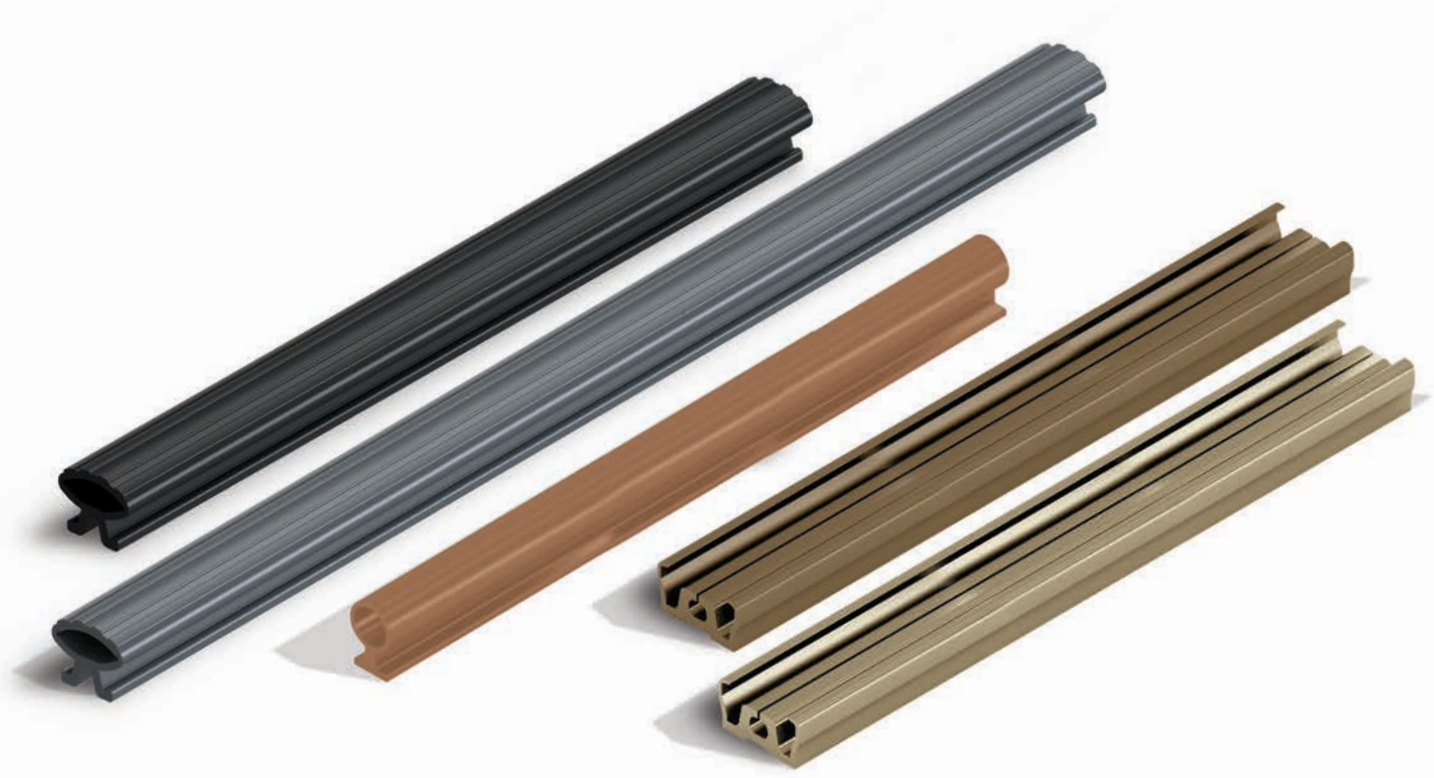
Schlegel extruded seals come in a huge range of colours.



Schlegel extruded seals are made from the best material to suit each application.

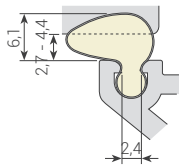
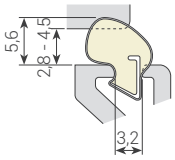
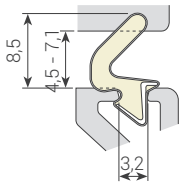
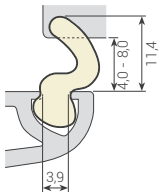


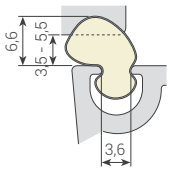
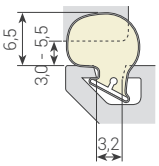
Schlegel extruded seals can be configured with geometries ranging from the simplest to the most specific shapes.



Types of application

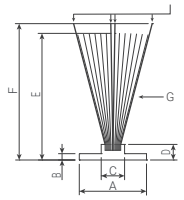
Q-LON

QL 9100	QL 9154	QL 9257	QL 9536
			

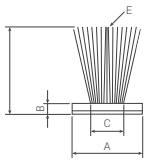
QL 9646	QL 9898
	

Brush pile seals

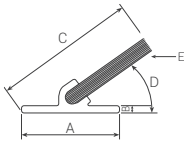
Quadrafin



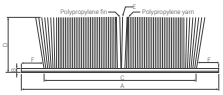
Poly-Bond (PB)



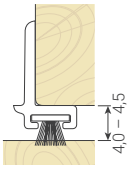
Angle-Pile (AP)



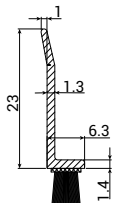
Dust-Plug (DP)



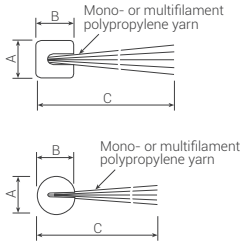
PB 1421



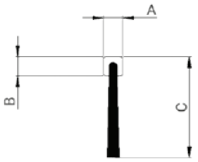
PB 1126



Skirting-Fringe (SF)

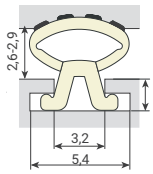


Flex-Brush (FB)

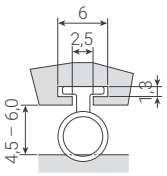


Extruded seals

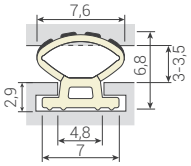
LT 1515



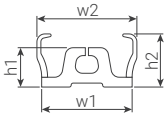
LP 1077



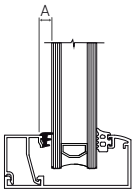
LT 1509

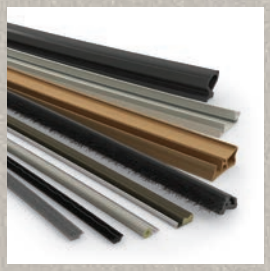


LV ZIP



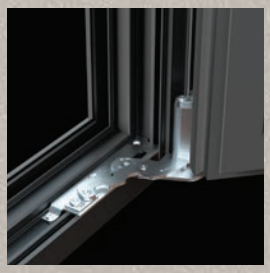
LE 1009





Schlegel

High performance sealing solutions



GIESSE

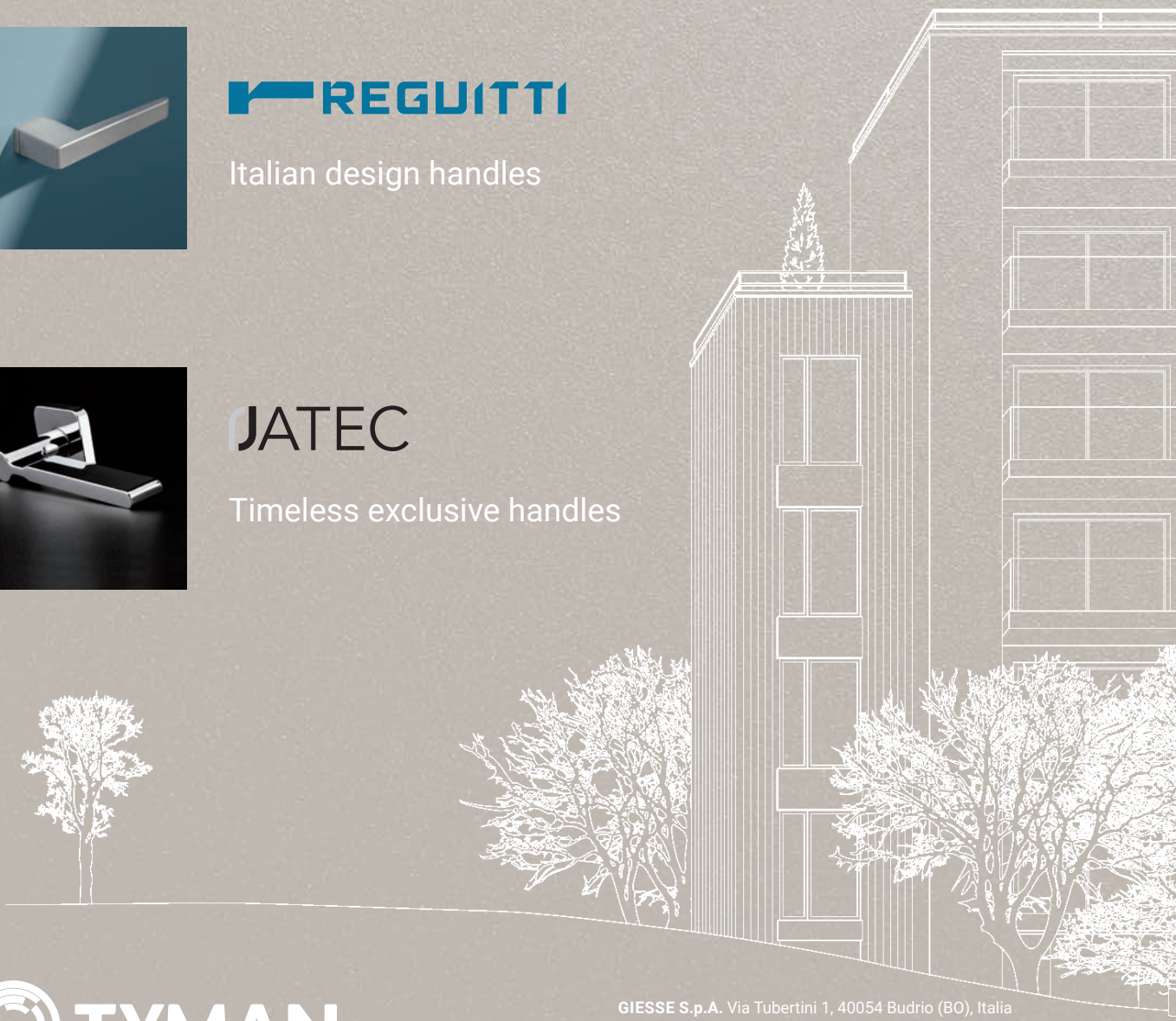
Innovative engineered hardware

REGUITTI

Italian design handles

JATEC

Timeless exclusive handles



TYMAN International

GIESSE S.p.A. Via Tubertini 1, 40054 Budrio (BO), Italia
Tel: +39 051 8850000 | email: info.it@tyman.com

U1084001
07/2023