



*SELF-ADHESIVE TECHNOLOGY*

**REASONS TO CHOOSE ADESO® SELF-ADHESIVE TECHNOLOGY**



*Adds value!*

# REASONS TO CHOOSE ADESO® SELF-ADHESIVE TECHNOLOGY

**ADESO®** technology is a revolutionary concept of manufacturing dual compound self-adhesive membranes using a professional waterproofing formulation on the top side (**APP** or **SBS**), exposed to weather conditions and an aggressive self-adhesive formulation on the bottom side of the reinforcement.

## SELF-ADHESIVE TECHNOLOGY

### EXCELLENT ADHESION, SAFETY AND FAST INSTALLATION

The new generation of self-adhesive membranes using **ADESO®** Technology is the most innovative bitumen waterproofing product available in the industry.

**ADESO®** self-adhesive membranes meet the requirements of safety, fast installation, versatility typical of modern construction technology.

The self-adhesive products currently on the market are made from elastomeric self-adhesive compounds and sometimes without internal reinforcement.

The self-adhesive bituminous membranes made with **ADESO®** Technology are realized using innovative technologies that allow the stratification of more bituminous compounds and then the realization of membranes of different thicknesses with adhesion characteristics.

The self-adhesive membranes ICEPROOF, ICEPROOF Mineral, ELASTOFLEX SA P, ELASTOFLEX SA P Mineral, SPIDER P, SPIDER P Mineral, POLYVAP SA, ADESOSHIELD SA, ADESO GUARD, ADESO VENT, ADESO VENT Mineral, POLYSTICK TU PLUS and POLYREFLECT are unique in the industry and boasts years of undisputed success in various applications made by applicators, contractors, architects and designers.

The easy of installation on delicate structures such as wood, the safe application on insulating boards sensitive to the flame or the simple restoration of the waterproofing membrane, are just some of the advantages of the self-adhesive system proposed by POLYGLASS.

## SELF-ADHESIVE TECHNOLOGY

### TECHNICAL AND LAYING ADVANTAGES

(over traditional membranes)

#### TECHNICAL ADVANTAGES

- Excellent adhesion to all surfaces concrete, metal, wood, and insulation materials,
- Excellent cold flexibility (from -25 °C to -35 °C),
- High polymer content (over 30%),
- Long-lasting durability due to the absence of deterioration caused by torching,
- Increased bituminous-polymer compatibility for better dispersion,
- Elevated peeling and pull-out values,
- Excellent seam resistance,
- End overlaps and side overlaps with **SEAllap®** technology,
- Excellent capacity for adaptation to movement of support surface,
- No slippage,
- Better granule adhesion.

#### LAYING ADVANTAGES

- Faster laying because no torching is required,
- Certainty of always laying with complete adherence,
- Can be applied all-year round, also under difficult conditions and low temperature (ICEPROOF),
- Ease and precision in sealing membrane sheets together,
- Savings during laying (no consumption of propane torching gas),
- Application possible in areas closed and/or at fire risk in complete safety.



## IMPROVED PERFORMANCE

### COMPOUNDS WITH GREATER POLYMER CONTENT

In **ADESO**® membranes, a higher quantity of special elastomeric compound **SBS** is dispersed in the bitumen.

This increase compared to traditional SBS membranes means better polymeric dispersion, greater adherence, longer durability, and better cold flexibility values (\*).

(\*) data taken from comparable tests

ADESO® ADVANTAGES

OVER 30% MORE POLYMER	
SELF-ADHESIVE SBS MEMBRANE	TRADITIONAL SBS MEMBRANE
100+35%	100%
Polymer content	
-35 °C	-20 °C
Cold flexibility	
9	7
Bituminous polymer dispersion	

## INCREDIBLE ADHESION WITH NO TORCHING EVEN AT LOW TEMPERATURES\*

(\*) with ICEPROOF product

Polyglass **ADESO**® self-adhesive products are laid perfectly without torching. Their excellent adhesion characteristics have been expressly developed for perfect sealing to support surfaces, and like the new ICEPROOF membrane, can even be applied at low temperature.

**PEELING TEST  
ASTM D 1000  
at 23 °C**

**SPIDER P 3,5 MINERAL**

23,8 N/10 mm

**ELASTOFLEX SA P 3,5 MINERAL**

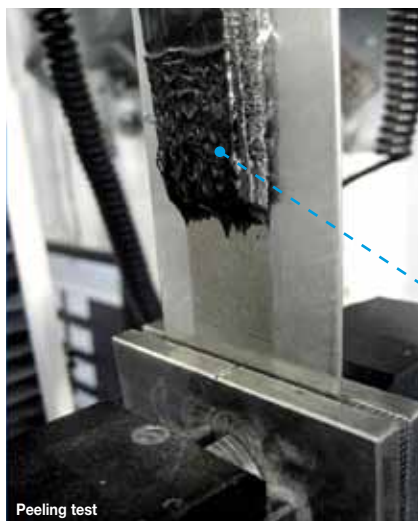
26,5 N/10 mm

**ICEPROOF P 3,5 MINERAL**

44,7 N/10 mm

**OTHER PRODUCTS**

from 11 to 25 N/10 mm



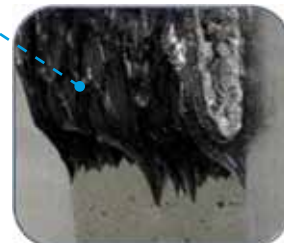
**PEELING TEST  
ASTM D 1000  
at 5 °C**

**ICEPROOF 3,5 MINERAL**

31,4 N/10 mm

**OTHER PRODUCTS**

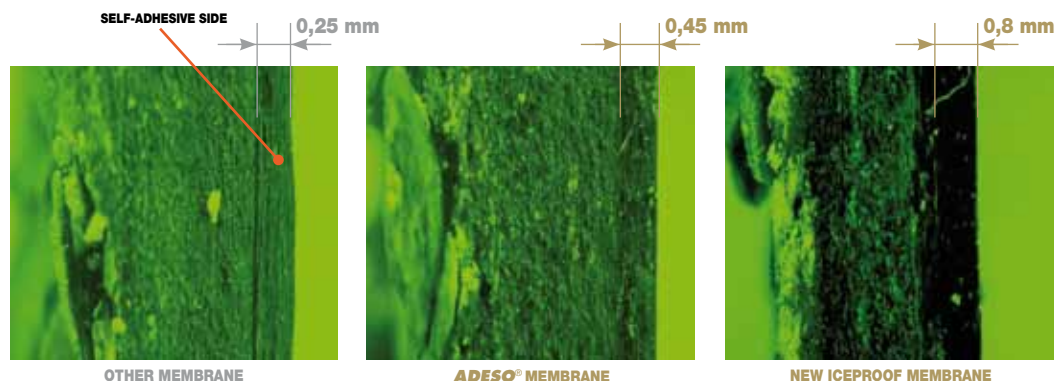
no product adheres at 5 °C



## INCREASED ADHESIVE COMPOUND THICKNESS

Polyglass has improved the adhesion of its **ADESO**® membranes by increasing the thickness of the adhesive compound.

FLUORESCENT MICROSCOPE PHOTOGRAPHY  
SECTION VIEW AT 25X MAGNIFICATION



# REASONS TO CHOOSE ADESO® SELF-ADHESIVE TECHNOLOGY

## INCREASE ADHESION TO SUPPORT SURFACE (PULL-OUT TEST)

By adding higher quantities of special polymers, Polyglass has significantly increased the adhesive properties of its **ADESO®** products, such as: Spider P, Elastoflex SA, Adesoshield SA, Polyvap SA and the new POLYREFLECT and ICEPROOF membranes.

### PULL-OUT TEST UNI EN 1348

**SPIDER P 3,5 MINERAL**

**0,50 N/mm<sup>2</sup>**

**ELASTOFLEX SA P 3,5 MINERAL**

**0,60 N/mm<sup>2</sup>**

**ICEPROOF P 3,5 MINERAL**

**0,80 N/mm<sup>2</sup>**

**OTHER ADHESIVES**

from 0,10 to 0,45 N/mm<sup>2</sup>



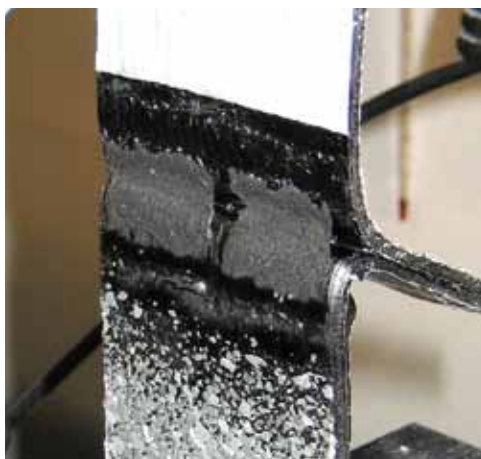
Pull-out test

## EXCELLENT ADHESION OF OVERLAP SEAMS

Thanks to an extremely adhesive compound and special **FASTlap®** granule-free end lap and **SEALLap®** factory-applied adhesive treatment overlapping, **ADESO®** line membranes always have perfectly sealed seams.



**SEALLap®** SELF-ADHESIVE SELVEDGE



Seam detachment strength test

### SEAM DETACHMENT STRENGTH TEST UNI EN 12316

**SPIDER P 3,5 MINERAL**

**43,5 N/50 mm**

**ELASTOFLEX SA P 3,5 MINERAL**

**47,3 N/50 mm**

**ICEPROOF P 3,5 MINERAL**

**58 N/50 mm**

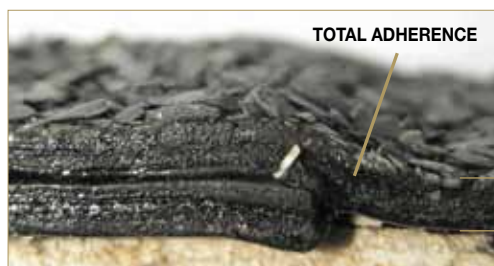
**OTHER ADHESIVES**

from 4,8 to 30,7 N/50 mm



## OPTIMUM THICKNESS

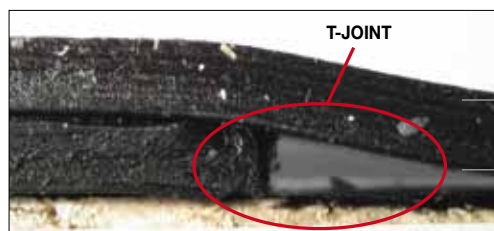
Although self-adhesive membrane technology is available for every thickness, our 20 years of experience in the sector leads us to recommend a maximum thickness of 2 mm on smooth versions and 3.5 kg on mineral versions in prevent capillarity phenomena from occurring at T-JOINT as shown in the photo.



TOTAL ADHERENCE

EXAMPLE OF LAYING OF POLYGLASS  
ADHESIVE MEMBRANE SEAMS

**2 mm**



T-JOINT

EXAMPLE OF LAYING OF AN  
ADHESIVE MEMBRANE SEAM WITH  
INCORRECT THICKNESS

**3 mm**

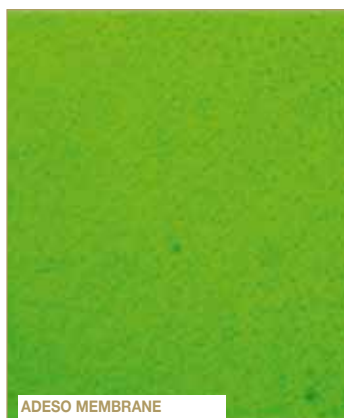


## EXCELLENT BITUMINOUS POLYMER DISPERSION

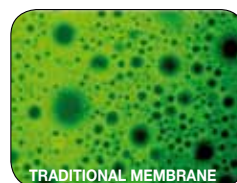
**ADESO®** membranes are formulated with special elastomeric compound **SBS** which when combined with the high percentage contained in the compound permits far superior dispersion than traditional membranes.

When well dispersed in the polymeric matrix, the bitumen is less vulnerable to temperature change, and this type of protection improves the characteristics of both cold flexibility and ageing.

**MICROSCOPIC PHOTOGRAPHY SHOWS THE BITUMEN PARTICLES (BLACK DOTS) DISPERSED IN THE POLYMERIC MATRIX (GREEN DOTS) AT 250X MAGNIFICATION**



ADESO MEMBRANE



TRADITIONAL MEMBRANE



**THICKNESS** - Fluorescence microscope at 250X magnification.  
Standard UNI EN 1849-1

## NO SLIPPAGE

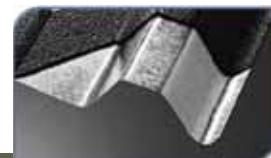
Tests demonstrate that after a 24 hour stay time at 70 °C **ADESO®** self-adhesive membranes present no signs of slippage on a 30° inclined plane, and a slippage of only 1 mm under the same conditions at 45°.

Tests were conducted on inclined planes, smooth, level concrete, and irregular surfaces such as fretted steel sheet.

Given the usual destination of use of **ADESO®** products, the slippage resistance on inclined surfaces test is extremely important.



**WATER PROOF SHEETS** - Determination of high temperature flowing  
Standard UNI 8202, Part 16



## BETTER ADHESION OF THE GRANULES

The use of new-generation compound also improves the adhesion of the slate chips considerably.

After 50 brushing, the upperside slate surface passed laboratory tests conducted to Standard UNI EN 12039 brilliantly and remained in excellent state unlike the other products shown in the photos whose surfaces were visibly compromised.

The loss of granules from **ADESO®** membranes amounted to only 18-20% (compared to 30%, that is the limit by norm).

18-20% LOSS OF MINERAL



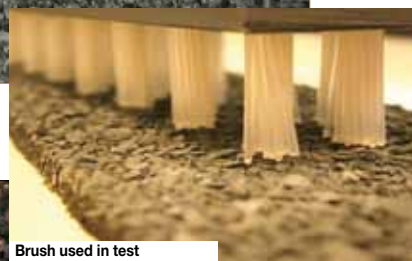
ADESO POLYGLASS MEMBRANE  
After 50 brushing cycles

AREAS LOSS OF MINERAL



OTHER PRODUCT  
After 50 brushing cycles

26-28% LOSS OF MINERAL



Brush used in test



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