



SELF-ADHESIVE TECHNOLOGY

REASONS TO CHOOSE ADESO® SELF-ADHESIVE TECHNOLOGY



Adds value!

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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 **ELASTOFLEX SA P**, **ELASTOFLEX SA P Mineral**, **ELASTOFLEX SA AF P**, **ELASTOFLEX SA AF P Mineral**, **SPIDER P SA**, **SPIDER P SA Mineral**, **POLYVAP SA P-AL**, **POLYSTICK TU PLUS V**, **ADESOSHIELD SA P** and **ADESOGUARD SA** 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;
- 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;
- 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;
- Applicable all year round, with suitable weather conditions, as specified by the application manual;
- 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.

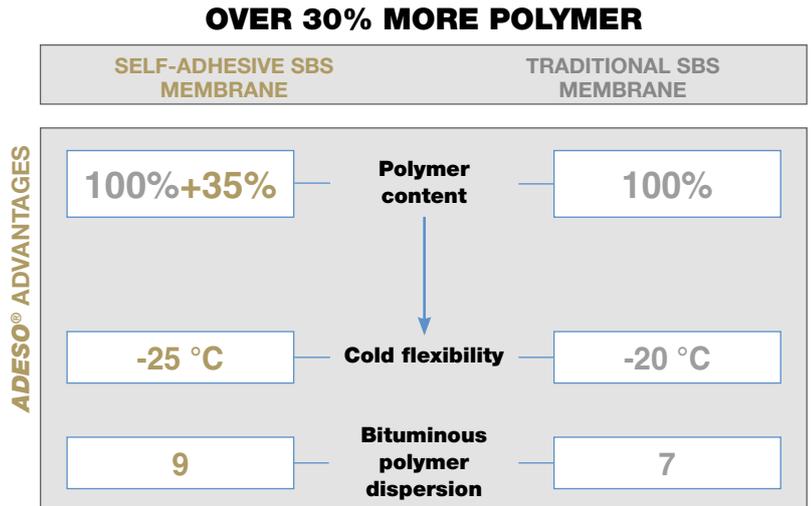


IMPROVED PERFORMANCE

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)



INCREDIBLE ADHESION WITH NO TORCHING EVEN AT LOW TEMPERATURES

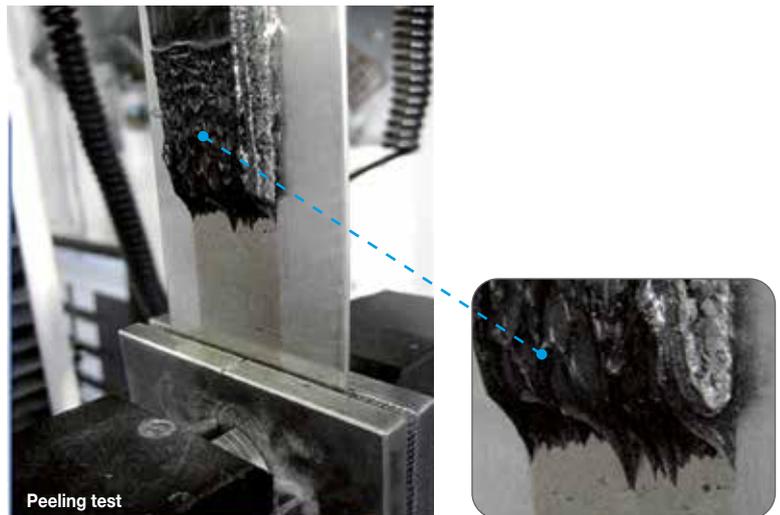
Polyglass **ADESO**® self-adhesive products are laid perfectly without torching. Their excellent adhesion characteristics have been expressly developed for perfect sealing to support surfaces.

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

ELASTOFLEX SA P 3,5 Mineral
23,8 N/10 mm

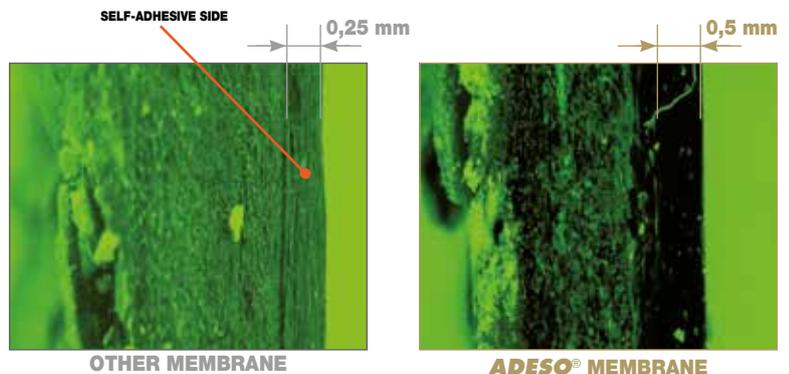
SPIDER P 3,5 Mineral
26,5 N/10 mm

OTHER PRODUCTS
from 11 to 25 N/10 mm



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

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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: Elastoflex SA P, Spider P, Adesoshield SA, Polyvap SA.

TEST DI PULL-OUT UNI EN 1348

ELASTOFLEX SA P 3,5 Mineral

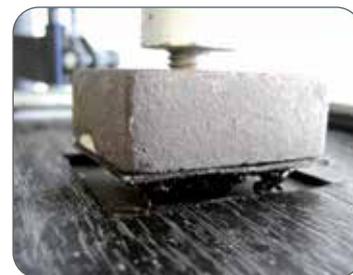
0,60 N/mm²

SPIDER P 3,5 Mineral

0,50 N/mm²

OTHER ADHESIVES

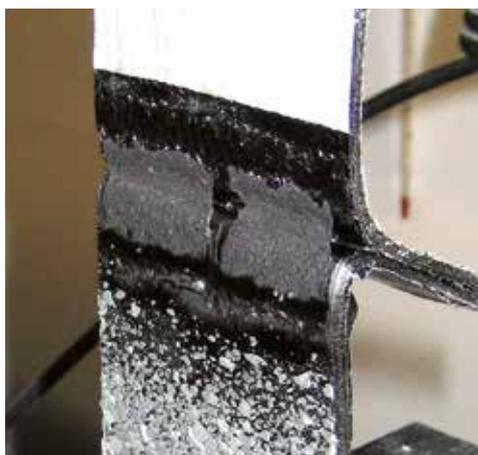
from 0,10 to 0,45 N/mm²



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.



Seam detachment strength test

SEAM DETACHMENT STRENGTH TEST UNI EN 12316

ELASTOFLEX SA P 3,5 Mineral

47,3 N/50 mm

SPIDER P 3,5 Mineral

43,5 N/50 mm

OTHER ADHESIVES

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



SEAllap® SELF-ADHESIVE SELVEDGE

OPTIMUM THICKNESS

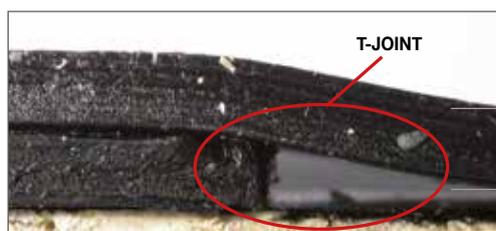
Although self-adhesive membrane technology is available for every thickness, our 20 years of experience in the sector leads us to recommend a maximum thickness of 2 mm on smooth versions and 3.5 kg on mineral versions in prevent capillarity phenomena from occurring at T-JOINT as shown in the photo.



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

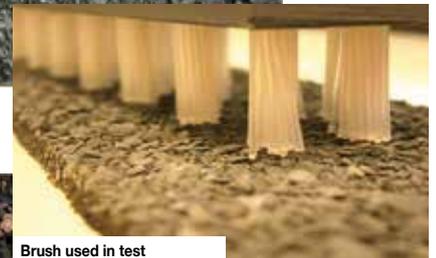
ADESO® POLYGLASS MEMBRANE
After 50 brushing cycles

AREAS LOSS OF MINERAL



OTHER PRODUCT
After 50 brushing cycles

26-28% LOSS OF MINERAL



Brush used in test



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