

TECHNICAL BULLETIN - Key elements to a Good Adhesive

A lot of people get hung up and are concentrating more on the initial tack or instant grab of an adhesive. Whilst this is important, there are two other areas which are of greater importance, tensile strength and shear strength, these are critical to ensure a long lasting bond. Below we explain the differences and what you should look for when choosing an adhesive.....

Tensile Strength

The strength of the adhesive once cured. The force ('pulling force') is against the adhesive vertically. The higher the tensile strength the stronger the adhesive.



Product	Newtons	Kilograms
Soudal Supertack	3.25 N/mm ²	29.00 kg/cm ²
FixALL High Tack	3.5 N/mm ²	35.69 kg/cm ²
FixALL Xtreme Tack	2.1 N/mm ²	21.00 kg/cm ²
X-Tack 7	2.2 N/mm ²	22.43 kg/cm ²
Siroflex Grip & Grab	2.2 N/mm ²	22.43 kg/cm ²
Ritetack Instant	2.2 N/mm ²	22.43 kg/cm ²

Shear Strength

The strength of the adhesive once cured. The force ('sliding force') is against the adhesive horizontally. The higher the shear strength the stronger the adhesive.



Product	Newtons	Kilograms
Soudal Supertack	3.2 N/mm ²	32.63 kg/cm ²
FixALL High Tack	Not stated	
FixALL Xtreme Tack	Not stated	
X-Tack 7	Not stated	
Siroflex Grip & Grab	1.17 N/mm ²	11.70 kg/cm ²
Ritetack Instant	Not stated	

Initial Tack

Ability for the wet adhesive to instantly hold the material in place without movement or slip. The higher the initial tack the more load the adhesive can hold whilst the adhesive is curing.



Product	Weight	Kilograms
Soudal Supertack	220 kg/m ²	0.020 kg/cm ²
FixALL High Tack	140 kg/m ²	0.014 kg/cm ²
FixALL Xtreme Tack	400 kg/m ²	0.040 kg/cm ²
X-Tack 7	400 kg/m ²	0.040 kg/cm ²
Siroflex Grip & Grab	250 kg/m ²	0.025 kg/cm ²
Ritetack Instant	250 kg/m ²	0.025 kg/cm ²

Elasticity - Modulus

Ability for the adhesive to stretch (force and elongation) and resist tearing. A low modulus product is softer, suited to sealing applications. A high modulus adhesive is stiffer, suited for bonding applications.

Product	Newtons	Kilograms
Soudal Supertack	2.18 N/mm ²	
FixALL High Tack	2.30 N/mm ²	
FixALL Xtreme Tack	1.80 N/mm ²	
X-Tack 7	1.00 N/mm ²	
Siroflex Grip & Grab	1.40 N/mm ²	
Ritetack Instant	1.40 N/mm ²	

EXPERT IN SEALANTS, PU FOAMS AND ADHESIVES







Other terms you may hear:

Extrudability

The ease of the wet adhesive to flow out of the gun. The thicker (higher viscosity) of the adhesive the harder it will feel to squeeze out of the application gun.

Strength Build

The building adhesion of the adhesive to the application surface over a time period. A strength build is relative to adhesion strength and time.

Hardness (Shore)

The ability for the adhesive to resist indentation. The higher the hardness the more resistant the adhesive is to scoring or marking.

All data taken from the product technical data sheets.

For more assistance and information in choosing the right adhesive for you application, contact us on 1300 50 70 11 or email info@soudal.com.au.

