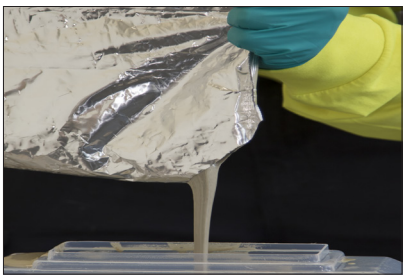
Low Density Two Part Polyurethane



Prysmian low density two part resin has enhanced performance characteristics compared with conventional two part systems. The pre-filled resin is supplied in a twin pack pouch which provides a totally enclosed mixing system. The resin is available in pack sizes up to 8 litres (2 x 4.0 litres).

Features and Benefits

- The combination of fillers used provides greater fluidity in the mixed resin
- This also ensures that filler dispersion is improved
- The enhanced flow characteristics allow more efficient filling in complex joint configurations
- The resin has excellent adhesion to XLPE, PVC, Lead etc.
- Can be supplied for use in both tropical and temperate climates
- Filled joints may be energised immediately if left undisturbed
- Type approved in LV joints (ENA TS C81/3 and BS EN 50393)
- Tested in accordance with CENELEC Specification HD631.1

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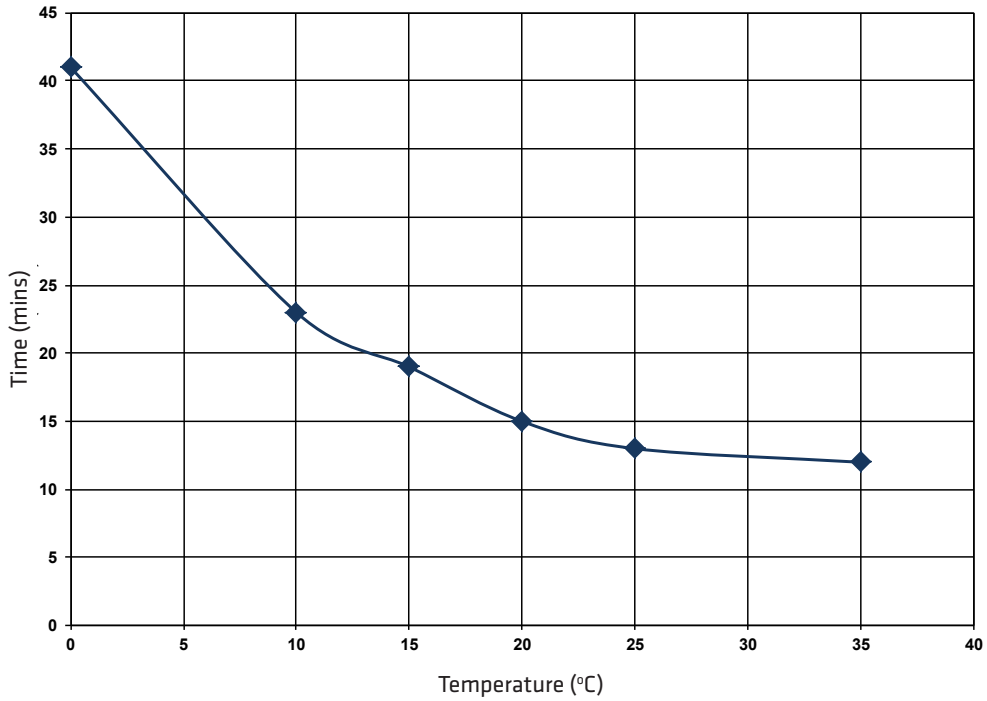
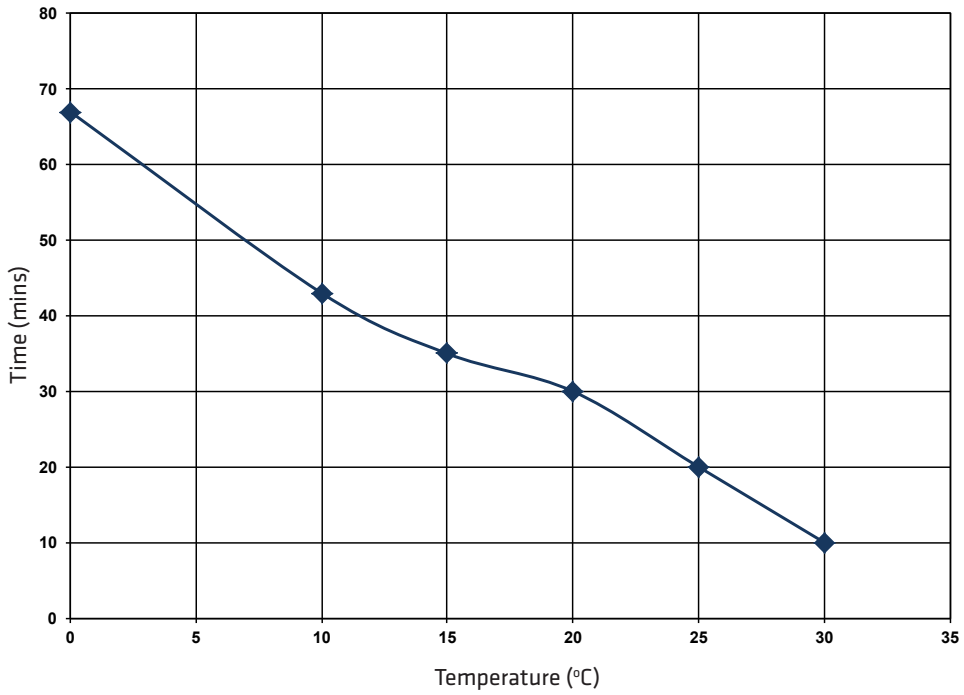
Technical Information

Resin Base - Polyurethane		
1	Type, description and shelf life	Castor oil based polyol, indefinite shelf life
2	Appearance	Brown/beige liquid
3	Viscosity	17000 cP @ 20°C
4	Relative density	1.33 g/cm^3 @ 20°C
5	Flash point	>250°C
Hardener - 4,4' diphenylmethane diisocyanate		
1	Shelf life	Two years
2	Appearance	Brown liquid
3	Viscosity	125 cP @ 20°C
4	Relative distance	1.24 g/cm^3 @ 20°C
5	Flash point	>250°C
Fillers		
1	Type and description	Mineral fillers - calcium carbonate, glass micro-spheres
2	Proportion by volume	40%
Mixed Systems		
1	Mix ratio	5.3 polyol : 1 hardener
2	Viscosity when mixed	12000 cP @ 20°C
3	Gel time	See attached curve
4	Volume contraction during cure	<1%
5	Shelf life	Two years from date of manufacture (as indicated on packaging)
Physical Properties		
1	Relative density	1.30 g/cm^3 @ 20°C
2	Coefficient of expansion	0.16 x 10^{-3} cm^3/cm^3/°C
3	Tensile strength	1-5 MPa
4	Ultimate elongation	15%
5	Impact strength (Izod)	0.52 J/m
6	Water absorption	<1% (24 hour water boil)
7	Adhesion in shear to XLPE	0.75 N/mm^2
8	Continuous operating temperature	95°C
9	Thermal conductivity	0.5 W/m °C
Electrical Properties		
1	Volume resistivity	1 x 10^{12} ohm.m @ 20°C
2	Dielectric strength (1mm sphere gap)	17 kV/mm @ 20°C

Temperature effect on gel time - two part polyurethane

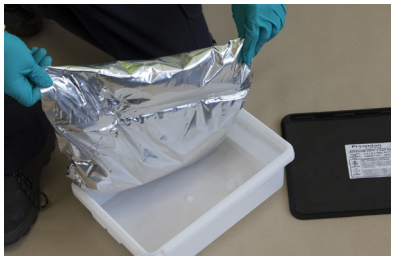


Temperature effect on backfill time - two part polyurethane



Mixing Instructions

Step 1



1. Open container and remove foil resin pack. Check bag for any signs of damage before proceeding.

Step 2

2. To start the mixing process hold the bag as shown by the hardener (small) compartment.

Step 3

3. Squeeze the hardener through the membrane into the resin (large) compartment.

Step 4

4. Ensure that the membrane is completely open along full pouch length.

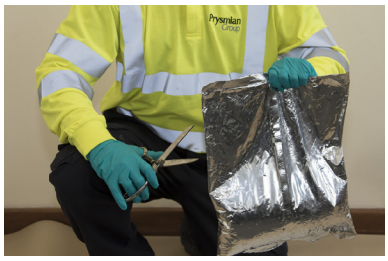
Step 5

5. Tumble and knead the bag to mix the two liquids.

Step 6

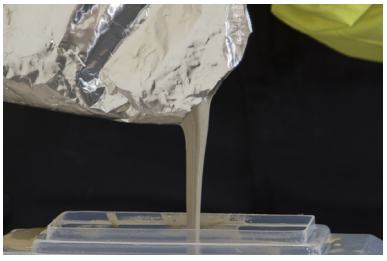
6. Continue tumbling and kneading for up to two minutes.

Step 7



7. Finally, cut one corner off the pouch.

Step 8



8. Pour pouch contents into the joint shell.

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