



TECHNICAL DATA SHEET

PRODUCT

POLIEP

SPECIAL ADHESIVE/GLUE
also for **HUMID or WET MATERIALS**

Nature of the product

POLIEP adhesive/glue has mechanical and adhesion characteristics superior to all the standard polyester adhesives; this due to the contemporary presence into the formula of epoxydes combined to different polyester resins (from rigid to highly flexible and elastic) so as to allow safe bonding/gluing also in the most difficult conditions.

POLIEP is different from Poliepoxy, of which keeps the main characteristics, because of:

- higher total content of resins;
- longer working time (better wettability also on less porous supports: iron, etc.);
- longer self-life and stability;
- low odour and styrene controlled emission thanks to the presence of appropriated inhibitors;
- better polishing result thanks to the presence of suitable and studied mineral fillers.

Applications

Permanent bonding/gluing of MARBLE, GRANITE, STONES, IRON, WOOD. Subject to verification test on site, it can be used also on **humid or wet supports**.

Characteristics of the product

The adhesive is provided with the proper catalyst (dibenzoyl peroxide in paste, at 50%) in tube and has the following characteristics:

properties	value	meas. unit	method
APPEARANCE	pasta		GENERAL
COLOUR	straw		GENERAL
VISCOUSITY	478000	cps	BROOKFIEELD
DENSITY	1.59	g/cm ³	DIN 53217
FLASH POINT	34 (93.2) *	°C(°F)	DIN 53213
STABILITY	> 12	months	GENERAL

*referred to styrene

Semi-solid paste

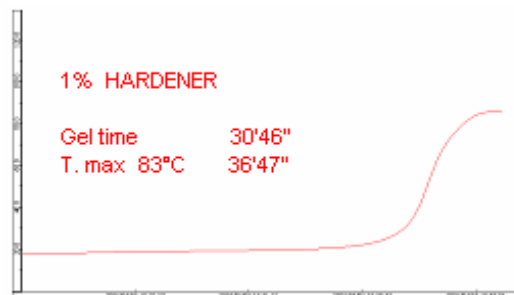
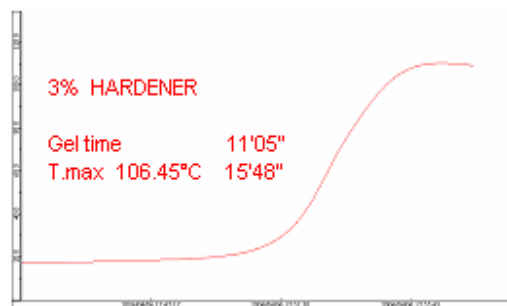
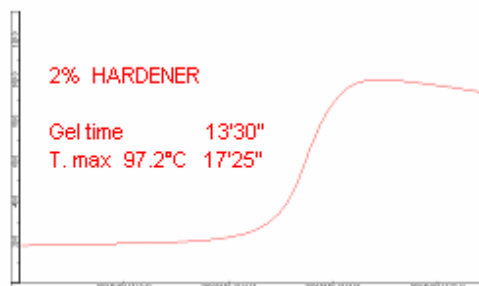
Available in standard colours: STRAW/BEIGE, WHITE

Possibility of other colours upon request

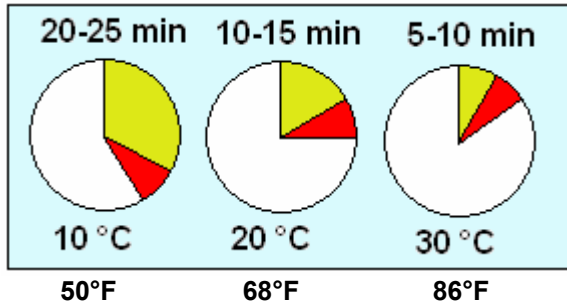
Thermal trend of the reaction

Hardening conditions:
100 grams of POLIEP + 2 grams of paste hardener,
Thermostatic cell at 18°C (64.4°F)

Gel time 13.20 minutes
Hardening time 17.25 minutes
Exothermal peak 97.20°C (206.96°F)



Hardening time at different temperatures



At temperature lower than 10°C (50°F) the hardening can be not homogeneous and even with consequent decrease of the mechanical properties of the hardened adhesive

Properties of the hardened adhesive

Properties *	value	meas. unit	method
TENSILE STRENGTH *	95	Mpa	ISO 527-2
BENDING STRENGTH *	150	Mpa	ISO 178
BREACKAGE ELONGATION *	6,1	%	ISO 527-2
VITREOUS TRANSITION TEMPERATURE (HDT) *	105 221	°C °F	ISO 75-A

* data referred to the main resin or the formulation only

Chemical resistance

Determined as variation in % weight on disks after 21 days dipping at 25°C (77°F)

Chemical aggressor	%	
DEMİNARALIZED WATER	0.08	resists
SODIUM HYDROXIDE 10%	0.13	resists
ACEIT ACID 10%	0.41	resists
HYDROCHLORIC ACID 10%	0.43	resists
METHYLISOBITHYLKETON	1.95 *	doesn't resist
SODIUM HYPOCHLORITE 15%	0.13	resists
ETHYL ALCOHOL 50%	0.31	resista

General considers acceptable a variation in weight <0,5%

Adhesion tests

The two supports are bonded and submitted to traction 48 hours after hardening

TEST	Support 1		Support 2	N/cm ²
A	Honed granite	to	Honed granite	330
B	Honed granite	to	Rough granite	280
C	Honed marble	to	Honed marble	283
D	Honed marble	to	Rough marble	273
E	Honed marble	to	Degreased iron	283
F	Wet marble	to	Wet marble	223

The tensile strength of the hardened adhesive is 85 MPa. During the test execution the support breakage happened but not the breakage of the adhesive.



Safety

For all the products of General is available the specific Material Safety Data Sheet

Remarks

The data provided derive from published information or from our own laboratory tests. The information provided here have to be considered as a guideline and not as any form of performance guarantee.

Liability for defective products, when verified, is limited to refund of the purchase price since the application of the product is beyond the control of the manufacturer or supplier.

No liability is accepted for explicit and implicit damages due to the use of the product beyond our direct control.