

EUROBOND Penloc VT Plus

Product Description

EB Penloc VT Plus is a two component structural methacrylate adhesive, designed for the high strength bonding of metal and composite applications. EB Penloc VT Plus has been formulated from innovative technology, including our revolutionary adhesion system. This unique system enables the EB Penloc VT Plus to achieve the ultimate balance of mechanical strength and high impact resistance whilst still remaining both simple and quick to use.

Typical Applications

EB Penloc VT Plus is very versatile, and can bond a wide variety of substrates without the need for surface primers or conditioners. Typical examples shown below:

- Bonding metal fasteners to moulded composite parts.
- Bonding aluminium and stainless steel lettering in the sign manufacturing industry.
- Bonding automotive carbon fibre body panels.
- Bonding GRP and stainless steel in the marine industry. □ Bonding dissimilar metals for trailer fabrication.
- Repairing waterproof materials and membranes

Instructions for Use:

1. Always consult MSDS before using M100 for the first time. 2. Carry out surface preparation where required. *
3. Remove cap, and attach mixer nozzle.
4. Dispense sufficient adhesive to ensure equal mix.
5. Apply adhesive to one surface and assemble components carefully, clamping if required.
6. It is always easier to remove any excess adhesive prior to cure using a suitable cleaner *
7. Allow the adhesive sufficient time to achieve handling strength before moving or unclamping components.

Properties of Uncured Material

Resin	Methyl Methacrylate
Colour	Yellow/White or Black/White
Appearance	Thixotropic Gel
Viscosity Brookfield T Bar	400,000 to 600,000cps
Cure System	Exothermic
Open Time	5-7 Minutes @20°C 10g Mass
Handling Strength	7-10 Minutes @20°C 10g Mass
SG Part A	0.96
SG Part B	0.91

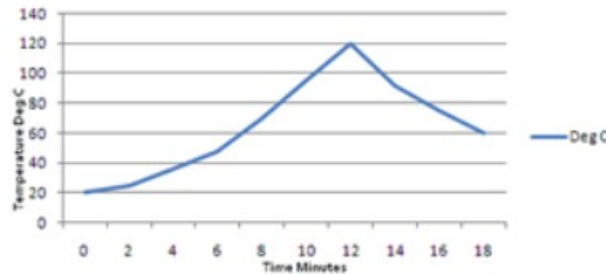
Curing Cycle

Once mixed at the 1:1 ratio the working time of the EB Penloc VT Plus is the period whereby the adhesive remains fluid and is easily transferrable between two or more mating surfaces. Temperature, volume and substrate have a direct effect on the length of this period as the EB Penloc VT Plus cures by an exothermic reaction. Higher temperatures and larger volumes speed the reaction causing a reduction in open and cure time. Lower temperatures and smaller volumes slow the reaction time extending both the open time and ultimate full cure time.

Contact Details

TECHSiL Limited
Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN
+44(0)1789 773232 | sales@techsil.co.uk | www.eurobond-adhesives.co.uk

Typical Exotherm Graph for
M-2100 10g Mass @20°C



Compatible Substrates*

Aluminium	Wood
Stainless Steel	Granite
Mild Steel	Marble
UPVC	Urethanes
Polyesters	Vinyl Esters
ABS	Glav/Zinc Coated
Acrylic	Thermoset Plastics
FRP	Gelcoats
GRP	Epoxy laminate

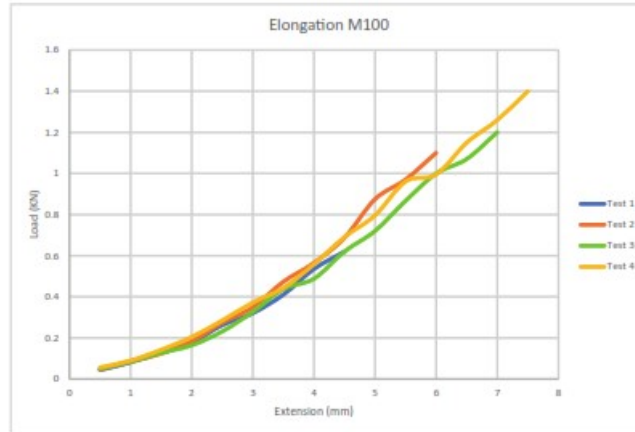
Performance of Cured Material

ASTM D1002 Lapshear	(Average over 16 tests)
Aluminium	20.4 Nmm ²
Stainless Steel	38.4 Nmm ²
Mild Steel	32.8 Nmm ²
GRP	Substrate Failure
ABS	Substrate Failure
Acrylic	Substrate Failure
ASTM D638 Tensile Strength	Up to 30 Nmm ²
Gap Fill	4mm
Standard Temperature Range	-55°C to 120°C
Paint Bake Cycle Approval**	20 Minutes @ 220°C
Aluminium lapshear following moist cataplastm	26.7 MPA
7 days @ 70°C	
Peel Strength Aluminium	6 KN/m
Shore Hardness	75 Shore D

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Elongation Data



Packaging

EB Penloc VT Plus is available in 50ml and 400ml Cartridges

Storage & Shelf life

EB Penloc VT Plus should be stored unopened in suitable hazardous storage conditions for flammable adhesives that are cool, dry location and out of direct sunlight. Stored correctly, this grade can offer a 12 month shelf life from its manufacture in the UK.

Health and Safety in Use

EB Penloc VT Plus is a methyl methacrylate and should not be used without consulting the MSDS, which contains full information regarding the use of this product, including Transport, Disposal, Toxicological, Exposure Controls, Accidental Release and First Aid measures essential to the safe use of this product.

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy themselves as to the suitability of such information for their particular use.

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