



Macroplast EP 3590 / EP 5590

9 June 2010

PRODUCT DESCRIPTION

Macroplast EP 3590 / EP 5590 provides the following product characteristics:

Technology	Epoxy
Product Type	Epoxy adhesive
Cure	Polymerisation
Components	Two-component
Application	General assembly
Appearance (Component A)	Grey
Appearance (Component B)	Cream
Appearance (Mixture)	Grey
Mixing Ratio, by weight Part A: Part B	3 : 1
Mixing Ratio, by volume Part A: Part B	100 : 33

Application Areas

Macroplast EP 3590 / EP 5590 is a two-component adhesive developed specifically for bonding filter end caps. It shows controlled flow even when cured quickly at high temperatures and has wide applicability for bonding metals, plastics, glass, ceramics and ferrites.

TECHNICAL DATA

Component A

MACROPLAST EP 3590:

Viscosity, mPas	approx. 95,000
Specific Gravity, g/cm ³	1.68

Component B

MACROPLAST EP 5590:

Viscosity, mPas	approx. 75,000
Specific Gravity, g/cm ³	1.71

Mixture (Component A + B):

Viscosity, mPas	approx. 90,000
Specific Gravity, g/cm ³	1.69
Gap fill (on a vertical surface), mm	< 0.7
Tensile shear strength, MPa*	17 (Steel)
Cure Time at 23 °C, hrs.	
Pot life:	20 (min.)
Initial setting time:	6
Full strength:	48
Cure Time at 60 °C, min.	
Full strength:	30

The cure speed of 2 part epoxy resins is generally affected by the ambient temperature. A fall of 8°C will roughly double the cure time; a rise of 8°C will tend to halve it.

*On Composites this adhesive is capable of strengths similar to that achieved on steel but in most cases delamination on the composite will occur before this load is reached. On Aluminium & Copper alloys the modulus and thickness of the metal will define the ultimate bond strength achieved.

DIRECTIONS FOR USE

Preliminary Statement:

Prior to application it is necessary to read the **Material Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed.

Pretreatment:

The substrate should be clean, dry, free of dust, oil, grease and other contaminants. An improvement of the adhesion can be achieved by grinding or sandblasting the surface.

Application:

The adhesive is only to be used within a limited time (pot life). Therefore only the amount that can be applied within the time of pot life should be mixed. Thoroughly mix resin (A) and hardener (B) in the correct proportion. Generally the recommended service temperature range for this product is -55 to +80°C. However experience has shown that higher temperatures, of around 200°C, may be endured for short periods providing the adhesive is not unduly stressed.

Classification:

Please refer to the corresponding **safety data sheets** for details on:

Hazardous Information

Transport Regulations

Safety Regulations

Storage:

When stored in the original unopened containers at 5 to 25°C, the shelf life of this product is 24 months from the date of production.

ADDITIONAL INFORMATION

Disclaimer:

The information provided herein, especially recommendations for the usage and the application of our products, is based upon our knowledge and experience. Due to different materials used as well as to varying working conditions beyond our control we strictly recommend to carry out intensive trials to test the suitability of our products with regard to the required processes and applications. We do not accept any liability with regard to the above information or with regard to any verbal recommendation, except for cases where we are liable of gross negligence or false intention.

This datasheet replaces all former versions.

Reference 0.0