



# Technical Datasheet

## Q 50-400-6090 2K PU Plastic Repair

### Characteristics:

50-400-6090 is a two component, room temperature curing, black coloured, odourless, thixotropic polyurethane adhesive specially designed for structural bonding of a wide range of materials as thermosetting and thermoplastic materials, steel, aluminium, concrete, wood and glass.

### Product Data:

Properties	Component A	Component B	Mixed
Chemical base	Polyol	MDI	Polyurethane
Cure mechanism	-	-	Polyaddition
Mixing ratio by volume	1,00	1,00	-
Mixing ratio by weight	0,89	1,00	-
Colour	black	amber	black
Appearance	liquid	liquid	thixotropic
Viscosity	1000 mPas	800 mPas	50000 mPas
Relative density	1,04	1,20	1,12
Application temperature	+10 / +30 °C	+10 / +30 °C	-
Flashpoint	>200 °C	230 °C	-
Vapour pressure	Very Low	0.000004 mmHg	-
Solubility in water	Insoluble	Insoluble	-
Shelf life	12 month	12 month	-
Gel time	-	-	60 - 90 sec
Sandable time	-	-	30 - 60 min
Recoat time	-	-	60 min

### Processing:

The strength and durability of bonded joints are dependant on proper pre-treatment of the surfaces to be bonded. At the very least, joint surfaces should be cleaned with a good degreasing agent in order to remove all traces of dust, dirt, oil and grease.

Pre-treatment of thermoplastics materials such as PVC, polycarbonate, polypropylene, PMMA, etc., can be made using a mixture of light ethers or with iso-propanol. Use of strong solvents is not recommended due to the risk of damage to the plastic surface.

Pre-treatment of other surfaces can be made using acetone or trichloroethylene.

Petrol or other solvents should never be used.

Where possible, carry out a mechanically abrading to remove paint from the surfaces (where necessary) and to increase strength and holding of Bond. Let dry the pre-treated area before applying the adhesive.



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### Product application:

Blending should be made through static mixer composed by a minimum of 16 elements. A lower number of components doesn't allow a complete mixing. A higher number of components would increase speed of the chemical reaction of hardening. Static mixer are for a unique use only.

Despite the good chemical thixotropy of the product, bi-components syringes can be easily used without help of mechanical tools. Bi-components cartridges can be used through manual applicators or specific pneumatic tools, based on capacity and cartridge shape.

For process and in continuative applications, automatic dosage system for low viscosity materials can be used. Base on specific needs our technical service is available to offer advice for the correct machinery to use with specific requirements.

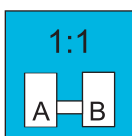
The mixture must be applied directly from the mixer on the pre-treated dry surface. The optimal layer of adhesive that will guarantee the highest resistance for the joint should have at least 0.2 mm of thickness. The components have to be assembled within the first minute of extrusion of the adhesive and sealed with a steady pressure over the gluing area.

### Reaction mechanism:

The speed of the harden reaction is mainly influenced by two factors: the application temperature and the application thickness. Being the reaction exothermic, the speed decreases as the thickness and temperature application decreases.

Even if in smaller measure, the substrate influences the speed of reaction. Materials with a high coefficient of thermal conductivity will tend to slow down the reaction.

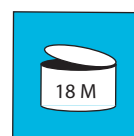
The maximal temperature of the reaction will be reached in 5 mm application thickness and is always lower than 90°C.



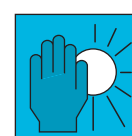
Gel time: 60 - 90 sec  
Sandable: 30 - 60 min  
Recoatible: 60 min



Safety:  
See MSDS



Shelf life:  
12 Month



Store in warm place  
20 - 25 °C



This data sheet is for information purpose only. To our knowledge the data provided complies with the latest standard and is based on years of experience in the manufacturing of our products.

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