



## AT 6060

## Technical Datasheet

AT 6060 is a two component methyl methacrylate adhesive. It is especially suited for bonding metals to different plastics (e.g. ABS, PC, PVC, PMMA, Polyamide) and composites.

- thixotropic
- short open time

### Physical properties - Liquid state

Base compound	Methyl methacrylate
Shelf life	12 months
Density	A / B: 1,07 g/cm <sup>3</sup>
Mixing ratio	1:1
Open time	2 - 4 min
Fixture time	5 - 10 min
Flashpoint	10 °C
Color component A	Off white
Color component B	Amber
Shore D Hardness	70-80

### Viscosity

Cone / plate,measured at 20 °C	
@ 0.5 s-1	80.000 - 140.000 mPas
@ 160 s-1	mPas

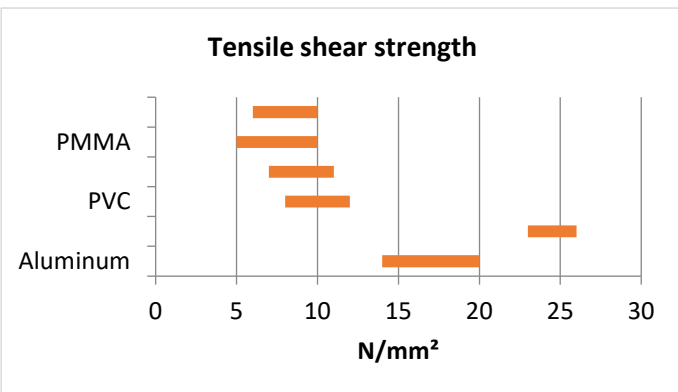
### Physical properties - Polymer

Full cure in hours	24
Temperature range	-50 - 120 °C
Elongation at break	30 - 40 %
E-modulus	800 - 1200 MPa
Tensile strength	20 - 30 MPa

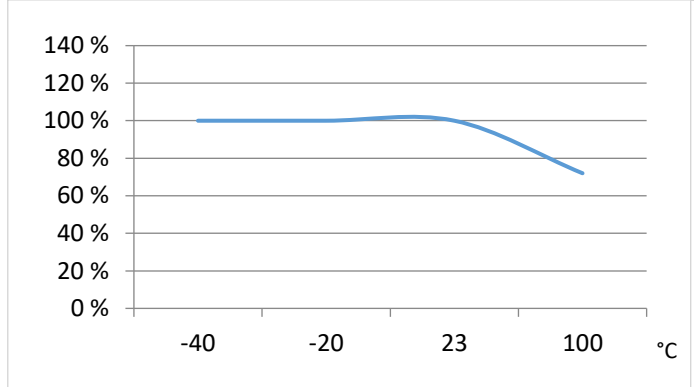
### Adhesive performance Tensile shear strength

Substrate	N/mm <sup>2</sup>	
Polycarbonate ▲	6	10
PMMA ▲	5	10
ABS ▲	7	11
PVC ▲	8	12
Stainless steel	23	26
Aluminum	14	20

▲ Substrate failure



### Hot strength tested at temperature



### Resistance against solvents

Solvent	Example	Resistance
Weak acids		+++
Weak bases		+++
Polar solvents		-
Strong acids and bases		-

+++ very good - limited

### General Information about MMA adhesives

2-component methacrylate adhesives belong to the group of reactive adhesives. The reaction starts by mixing hardener and resin. Cyberbond offers these adhesives in double cartridges in 1:1 or 10:1 ratio with static mixing tubes. This allows an easy and quick application. Methacrylate adhesives are available in different viscosities from liquid to paste-like and with different curing times. They are characterized by excellent adhesion to metals, many plastics and composite materials. The mechanical properties range from flexible to rigid.

### Measurement of Viscosity

Viscosity describes the flow-ability of a liquid. Cyberbond measures the viscosity of the products by means of the cone/plate method: the liquid is applied on a panel and a defined cone presses the liquid together and rotates. Newtonian fluids are measured at shear rate 160 s-1, thixotropic products are measured at shear rate 0,5 s-1 and 160 s-1.

The viscosity is measured in mPa\*s at 20 °C.

### **Clean Surface**

Surfaces should be clean, dry and free of grease before bonding.

### **Storage**

Store products in a cold and dark place at temperatures between 10 °C to 20 °C.

### **Safety Information for MMA adhesives**

Please consult the SDS (Safety Data Sheet) before using. Keep the workplace clean and use in well ventilated areas only. Install suitable exhaust system at the workplace. Wear suitable safety glasses and gloves. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

The data mentioned in this TDS, particularly the recommendations and use of products are based on our recent knowledge and experience. Due to the fact of having so many different materials involved and conditions of applications which are out of our influence, we strongly recommend to do sufficient tests in order to guarantee that Cyberbond products are suitable for the intended process and applications. Except for wilful acts any liability based on such recommendations or any verbal advice is hereby expressly excluded.

### **For safe handling consult Material Safety Data Sheet (MSDS).**

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