

Features

- High strength and durability
- Bonds plastics and composites
- Very good chemical resistance
- Good impact strength
- No primers or surface preparation necessary

Description

Acri-Bond 290 is a clear plastic bonding 2 Part Methyl Methacrylate Adhesive (MMA). It has a very strong bond to most plastics and in most cases the substrate will break before the bond. Due to its crystal-clear appearance, it is very versatile making it suitable for clear thermoplastics like acrylic and polycarbonate. Acri-Bond 290 is also suitable for fibreglass and carbon fibre bonding as well as PVC and ABS.

Properties of Uncured Adhesive

	AB290 (A)	AB290 (B)
Chemical Composition	Methyl Methacrylate	Methyl Methacrylate
Colour	Clear	Clear
Mixed Colour	Perfectly Clear	
Viscosity @ 25°C	20,000 CPS	20,000 CPS

Typical Curing Properties

Cartridge Ratio	10 : 1
Maximum Gap Fill	4 mm
Working Time @ 25°C	6 – 8 minutes
Fixture Time @ 25°C	16 – 20 minutes
Full Strength @ 25°C	24 hours
Supplied In	50mL or 250mL Cartridge

Typical Performance of Cured Adhesive

Shear Strength	Acrylic..... 950 psi (SF) PC..... 1050 psi (SF)
Resistant to	Mild Acids and Bases, Hydrocarbons, Alcohols
Susceptible to	Strong Acids and Bases
Working Temperatures	-40 to 140°C

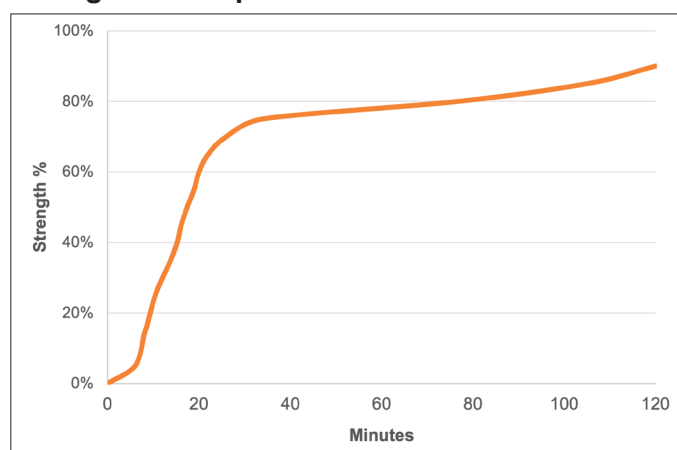
PC – Polycarbonate

SF – Substrate Failure

AF - Adhesion Failure

CF – Cohesion Failure

Strength Development



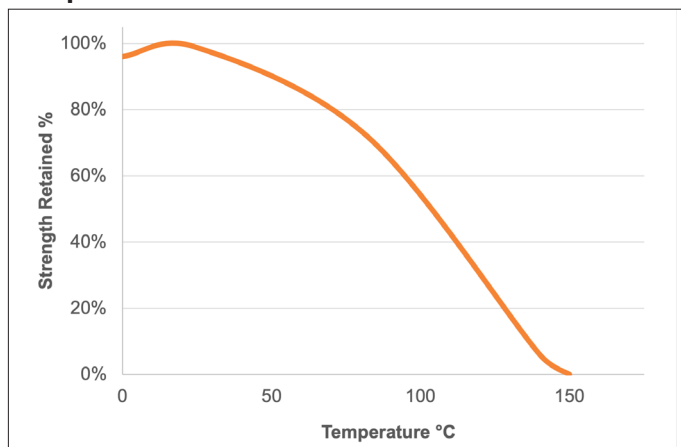
The graph above shows typical strength development of bonded components at 25°C. An increase in temperature will relate to a faster cure time. A lower temperature will result in a slower cure time.

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Temperature Resistance



ACRI-BOND 290 can be used in temperatures as low as -40°C.

Storage and Shelf Life

Storage Temperature	12 - 22 °C
Shelf Life	12 Months Minimum

Surface Preparation

All surfaces should be clean, dry and free from grease or contaminants before applying Acri-Bond 290. Acri-Bond Cleaner can be used to clean and degrease most materials.

Instructions for Use

1. Surfaces must be clean, dry and grease-free prior to bonding. If using a cleaning solvent, allow 3-4 minutes to fully evaporate before applying adhesive.
2. Apply adhesive directly out of static mixer to ensure correct pre-mixed ratio.
3. Assemble components within working time specifications and clamp.
4. Maintain clamps until fixture time is reached, which is based on 25°C but can vary with temperature changes. See above for clarification.
5. Clamps may be removed, and the job can be lightly handled. It should not be put under any heavy mechanical load until adhesive has fully cured.
6. Allow 24 hours for the adhesive to fully cure.

Materials Tested

Acrylic, PC, ABS, PVC, Fibreglass Reinforced Plastic, Carbond Fibre, Wood, MDF

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