

SAF15 Ultimate

Two Component Methacrylate



Product Description

SAF15 Ultimate is made of methacrylate adhesives, which brings a structural adhesion without the use of a primer. It offers high adhesive strength, high elongation as well as a low linear shrinkage of about 1%. It has the capabilities to resist impacts, vibrations and peeling.

It is recommended to use this product in temperatures varying between -40 and 150°C. It is also resistant to humidity during the assembly, UV effects as well as fresh, salt or demineralized water including permanent immersion. It has also obtained the M1/F1 accreditation for fire and smoke resistance. SAF15 Ultimate can withstand aggressive environments such as alkaline, diluted acids, polar solvents, oils and more.

Main Applications

- Composites
- Metals
- Plastics
- Dissimilar Substrates

Main Industries

- Transportation
- Marine
- Renewable Energy
- General Industry

Characteristics

- High environmental and impact resistance
- Metal Bonding
- Non-sag on vertical surfaces
- Permanent toughness even after ageing
- Minimal surface preparation

Product Characteristics

System	Two components 4:1 Volume Ratio
Polymerization	Room Temperature
Operating temperature	-40°C to 200°C
Elongation	200%
Final Colour	Dark Yellow Opaque ●

Adhesive Properties

Physical Properties

Tensile Strength at Break (MPa)	6.0
Elongation at Break	200%
Hardness (Shore D)	45 - 50

Curing Properties

Handling time (min)	8
Working time (min) At 25°C	13
Full Cure (hours)	24
Temperature Range (°C)	-40 to 200

Liquid Properties

Specific gravity (20°C)	
Resin	0.98
Hardener	1.198

Viscosity (Pa.s) At 23°C)

Hardener	50
Dynamic - Resin*	1200

*Thixotropic - Non-sag on vertical surfaces

Note: The physical and performance characteristics shown are averages obtained from tests performed according to ASTM test methods. Matco can make no warranty of any kind as to the results of the adhesive product use. The information published here is representative of laboratory research on these products and is believed to be reliable. Values should not be used for specification purposes. Each user should make their own test to determine the product suitability for their own intended use and shall assume all risks and liabilities in connection therewith. Materials should be stored at 70°F (21°C) with 50% relative humidity.



Adhesive Properties

Mechanical Properties

Lap Shear Strength

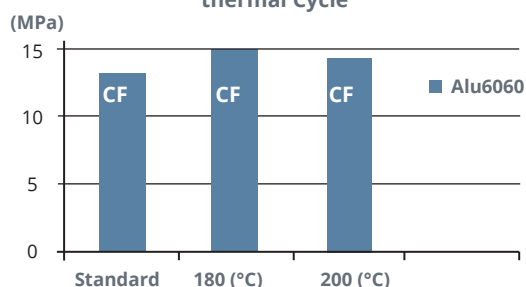
With NF1465	Mpa	PSI
Aluminium 6060	13.0*	1 885.5*
Steel	13.0*	1 885.5*

*Cohesive Failure

Post Baking and Ageing Resistance

Lap Shear Strength Value after post baking test
30mins at 180°C or 30mins at 200°C With NF1465

Lap Shear Strength values before and after thermal Cycle



Surface Preparation

Use alcohol to remove grease, contamination or poorly adhering oxides from metal surfaces. Most plastics require a simple cleaning before bonding. Some may require sanding for better performances.

Precautions

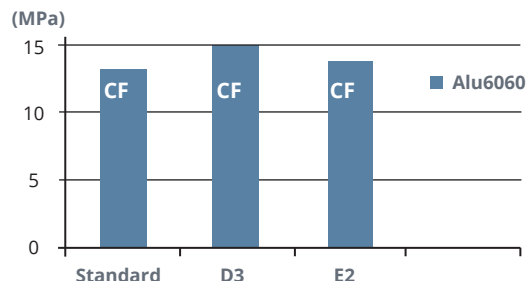
Adhesive contains methacrylate monomers and is flammable. Materials must be stored in cool place away from sources of heat. During the polymerization, the chemical reaction causes a typical smell, please use the product in a well-ventilated area.

When the adhesive two components are mixed, an exothermic reaction can occur and generates heat. The amount of heat is dependent on the mass and thickness of the mixed product. It can reach a maximal temperature of 100°C.

Adhesives contain chemical materials, prevent contact with skin and eyes. In case with skin contact, wash with soap and water. In case of eye contact, flush with water and seek immediate medical attention. Do not swallow and keep away from children.

Read material Safety Data Sheet before handling or using this product.

Lap Shear strength after weathering conditions Lap Shear Strength after ageing



NF EN ISO 9142

CF: Cohesive Failure

CFs: Cohesive Failure Superficial

D3: 3 Cycles hot/cold humid (72 hours)

E2: Humid Cataplasma (7 days)

Application

Optimum qualities are obtained at room temperature, ideally between 18°C and 28°C without post-curing. Follow the instructions on the product operating guide or contact your representative for any information concerning product use, dispensing equipment or substrates application.

Packaging

SAF15 Ultimate adhesive is available in 50mL and 490mL side by side cartridges, 20L pails or 200L drums.

SAF15 Ultimate 50ML cartridges require the use of **ADH_M5.4/16** mixers.

SAF15 Ultimate 415ML cartridges require the use of **ADH_MFX1318** or **ADH_MFX1018** mixers.

Storage

The SAF 15 Ultimate shelf life is 9 months in unopened original packaging. The product may be stored in a closed container in a dry place at temperature between 15°C and 30°C. Exposure to higher or lower temperature will result in a reduction of the stated shelf life.

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