



MMAXXUS XT905

Technical Data Sheet

MMAXXUS XT905 (Pink and Green) is a two component crysal clear-structural adhesive based on toughened acrylic. XT905 bonds glass, clear and coloured acrylic, polycarbonate, metals, plastics and woods.

XT905 offers excellent chemical resistance including hydrocarbon solvents and acids and bases from 3-10 pH.

Suitable Substrates

It can be used with a very wide range of substrate materials including ⁽¹⁾:

- Vinyl
- PVC
- Polycarbonates
- Aluminium
- Carbon fibre
- Stainless steel
- ABS
- Acrylics
- Styrenics
- Gelcoats
- FRP (fibre reinforced plastics)
- Polyesters
- Urethanes

Availability

XT905 can be supplied in the following formats:

- 25 ml syringe
- 50 ml cartridges
- 400 ml cartridges
- 19 lt plastic containers
- 190 lt kg steel drums



Physical Properties (@25°C)

	Part A	Part B
Viscosity (cP) ⁽²⁾	4000 - 6000	4000 - 6000
Density (g/cm ²)	1.1	1.1
Mix Ratio	1	1
Colour	Transparent	Transparent

Characteristics

Pot life ⁽³⁾	1 - 2 minutes
Handling Strength ⁽³⁾	3 - 5 minutes
Full Cure ⁽⁴⁾	24 hours
Operating Temperature	-40°C to 120°C
Flash Point	15°C
Mixed Density (g/cm ²)	1.1
Shore Hardness (D)	50
Shrinkage (%)	12

Bonding Performance (@25°C)

Tensile Strength Steel (MPa)	20 - 25
Tensile Strength Stainless Steel (MPa)	18 - 22
Tensile Strength Aluminium (MPa)	17 - 22
Lap Shear Strength Polycarbonate (MPa)	4 - 8
Tensile Strength FRP (MPa)	4 - 8
Tensile Strength ABS (MPa)	4 - 8
Tensile Strength PMMA(MPa)	3 - 5
Lap Shear Strength FR4 Epoxy (MPa)	17 - 22

Handling and Application

MMAXXUS XT series products are flammable. Keep containers closed after use. Gloves and safety glasses should be in use when applying the products in order to avoid skin and eye contact. In the case of skin contact, wash with soap and water. In the case of eye contact, flush with water for 15 minutes and seek medical attention. Harmful if swallowed. Keep out of reach of children. Avoid heat, sparks and open flames. See MMAXXUS MSDS for detailed safety information.

N.B. Large amounts of heat can be generated when large masses of this product are combined at one time; the resultant heat generation can result in the release of trapped air, steam and volatile gasses. To avoid this, use only enough material as is required for the application and confirm gap thickness to no more than 3mm. Further application advice is available upon request.



Dispensing Adhesive

MMAXXUS MX series may be applied manually or with automated equipment. Static mixer selection is critical to the correct functioning of this adhesive. To assure maximum bond strength, surfaces must be mated within the specified working time. Use sufficient adhesive to ensure that the jointed area is filled when the parts are pressed together. All adhesive application, part positioning and fixturing should be completed within the working time of the adhesive. All automated equipment should be constructed of stainless steel or aluminium. Avoid contact with copper in all fittings and pumps etc. Seals and gaskets should be PTFE, ethylene/propylene or polyethylene. Avoid Viton, neoprene or nitrile/BUNA-N elastomers for gaskets and seals. To clean up solidified adhesive, carefully scrape away excess and clean with solvent.

Effect of Temperature

Ideal conditions for adhesive use are between 18°C and 25°C. Temperatures below 18°C will slow cure speed; above 26°C will increase cure speed. The viscosities of the adhesive are also affected by temperature therefore any automated filling or dispensing systems should maintain constant temperatures throughout the year.

Storage and Shelf Life

Shelf life of MMAXXUS MX series adhesive (Part A) is 9 months, shelf life of Part B is 9 months. These storage times are based on continuous storage between 12°C and 23°C. Long term storage above 23°C will reduce the shelf life. Avoid temperatures above 35°C at all times. These products should never be frozen. Air conditioned or refrigerated storage between 10°C and 15°C will prolong shelf life. When repackaging from bulk containers to cartridges we recommend that the material is filled in to packaging constructed of Polybutylene terephthalate (PBT; please contact us for further information and advice.

Notes

- (1) Xtraloc recommend that all substrates be tested with the selected adhesive in the anticipated service conditions in order to determine the adhesives suitability for use.
- (2) Tested on Brookfield RV at 25°C, Spindle TC93 at 2.5RPM.
- (3) Handling strength is defined as the time taken for a bond of sufficient strength to be formed such that the parts can be moved. The times presented were tested at 24°C.
- (4) Full cure is defined as the time for the product to have developed 100% of its ultimate strength.
- (5) Figures quoted are for gap-filling capability. It should be noted that optimum bond thickness is 0.6 to 0.80mm in order to achieve maximum strength development.
- (6) All data presented in this sheet are correct at the time of issue and have been determined by Xtraloc in its own laboratories. The data presented are typical properties obtained by Xtraloc over multiple test phases. The data are presented as a guide and a selection tool, these data should not be used in place of thorough evaluation and application testing under anticipated conditions. Specific use, materials and product handling are beyond the control of Xtraloc, therefore our warranty is limited to the replacement of defective Xtraloc product.