



Product Description

Truloc Superset 45 is a low viscosity, ethyl based cyanoacrylate adhesive. It has been designed for the rapid bonding of plastics and rubbers and metals. Its rapid handling strength and high bond strength makes it ideal for O-Ring bonding. Superset 45 is a universal adhesive for advanced bonding techniques.

Typical Applications

Magnet bonding
Bonding of loudspeaker parts
Steel and PVC instrument bonding
Plastic fans to plastic motor housings
Bonding of ceramics
Metal sleeves to rubber collars
General bonding where fast setting and small gap fill is required
O-Ring bonding

Product Benefits

One part adhesive - no mixing
Eliminates many mechanical fasteners
Replaces slower curing adhesives
Replaces expensive jigs and fixtures.

Fixturing

Fixturing time is defined as the time after part assembly when the joint has developed tensile shear strength of 0.1 N/mm² measured 22° C. The relative humidity of the surrounding atmosphere can greatly affect the speed of cure of cyanoacrylate. The relative humidity best suited for bonding with cyanoacrylate adhesive Superset 45 is between 40% and 60%.

Performance of cured Superset 45

Tensile shear strength, ASTM D1002 in N/mm²

| | |
|-----------------------|-------|
| Steel (degreased) | 10-30 |
| Aluminium (degreased) | 10-18 |
| ABS | 6-20 |
| Polycarbonate | 5-19 |
| Nitrile rubber | 5-15 |
| Neoprene Rubber | 5-15 |

Typical Properties of uncured material

| | |
|------------------------|----------------------------------|
| Monomer | Ethyl cyanoacrylate |
| Appearance | Clear liquid |
| Viscosity | 40 cps |
| Toxicity | Non-toxic |
| Flash point (CoC) | 85° C |
| Shelf life | Minimum 1 year stored at 5-25° C |
| Specific gravity 25° C | 1.05 |

Physical properties of cured material

| | |
|---|------|
| Full strength achieved after 12 hours at 22° C on most surfaces | |
| Recommended gap | 0.05 |
| Maximum gap | 0.1 |
| Softening point ° C | 170 |



Solvent Resistance

Excellent solvent resistance to Kerosene, ethylene glycol, Hcl and water. Even after two weeks immersion at 20 degrees centigrade, the bonds on aluminium lap shears retained from 85-90% of their original strength.

Activators

To increase rate of cure or for extremely inactive surfaces use Truloc Activator 171.

Surface Preparation

A solvent wipe is usually sufficient for most surfaces. Optimum performance can be achieved on lightly sanded plastics and grit blasted metals.

Aluminium Preparation

Most aluminium has a natural oxide coating or an electrochemically produced anodic coating. This can be abraded and then solvent cleaned or as an alternative, chemically etched.

Application

Optimum results can be achieved by applying a small amount to one surface. Mate the surfaces to be bonded, then hold firmly using enough pressure to bring parts close together. Superset cyanoacrylate adhesive must be applied sparingly to give high cure speed coupled with high bond strength.

Caution

Contains cyanoacrylate ester. Bonds immediately in contact with skin tissue and is an eye irritant. Bonded skin should be peeled and not pulled apart. Flush well with water. Seek medical attention for eye or internal contact. Use with adequate ventilation and keep away from children.



IRRITANT

Note the information given in this data sheet is the result of controlled laboratory tests and experience. It is intended only as a guide to the user in selecting the appropriate grade of Truloc adhesive. Users must satisfy themselves by appropriate tests that the grades they propose to use are suitable for their specific application. Truloc Ltd. is not responsible for loss, claim or damages resulting from the use of their products.