



# TRULOC Technical Data Sheet

## Superset 45

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### **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/mm<sup>2</sup> 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/mm<sup>2</sup>

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.

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