A NEW FORCE IN CHEMICAL MANUFACTURING

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TECHNICAL DATA SHEET

AUGUST 2014

PRODUCT NAME

8480 Cyanoacrylate Adhesive

PACKAGING OPTIONS

Part Number	Available Size
8480-20	20g
8480-50	50g
8480-500	500g

Refer to MSDS for product safety guidelines

8480 Toughened Ethyl High Strength Black Cyanoacrylate Adhesive

Chemtools® 8480 is medium viscosity combined with fast cure speed, and excellent resistance to peel and shock loads. It is specially formulated to bond various Rubbers, Metals and Plastics for use in difficult environments.

APPLICATIONS:

- Ideal for bonding Rubbers, Magnets, Metals and Plastics.
- Ideal for Speaker Assemblies, Automotive Parts, Electronic Components, Electrical Parts, Computer Assemblies, Disk Drives, etc.

BONDING TIMES:

Under normal conditions, the surface moisture initiates the curing process. Functional strength develops in a short time but curing continues for at least 24 hours before full chemical/solvent resistance developed. The rate of cure will depend on substrate used.

Neoprene Rubber	12 - 22 seconds	Nitrile Rubber	12 - 22 seconds
SBR Rubber	15 - 25 seconds	Steel	60 - 100 seconds
Aluminium	10 - 25 seconds	Phenolic Materials	10 - 50 seconds
Polycarbonate	30 - 80 seconds		

LIQUID PROPERTIES:

Composition	Rubber Toughened Ethyl Cyanoacrylate
Appearance	Black liquid
Viscosity @ 25°C Brookfield RTV	300 cps
Flash Point (TCC)	> 93°C
Specific Gravity @ 25°C	1.1

CURED ADHESIVE PROPERTIES:

Gap Filling	0.3 mm
Tensile Shear Strength	13 - 28 N/mm^2
Service Temperature Range	-60 to +80°C
Full Cure	24 hours
Melting Point Temperature	160 - 170°C

MECHANICAL PROPERTIES:

Shear Strength (ASTM D1002/DIN 53283)

Neoprene Rubber	> 12 N/mm^2
Nitrile Rubber	> 12 N/mm^2
SBR Rubber	> 10 N/mm^2
PVC	> 6 N/mm^2
Aluminium	> 19 N/mm^2
Steel	> 28 N/mm^2
Polycarbonate	> 7 N/mm^2
ABS	> 7 N/mm^2

PHYSICAL PROPERTIES:

Coefficient of Thermal Conductivity, ASTM C177, $W.m^{-1}.K^{-1}$	0.1
Coefficient of Thermal Expansion, ASTM D696, K^{-1}	80 x 10^{-6}
Glass Transition Temperature	150°C
Dielectric Strength, ASTM D149, kV/mm	25
Dielectric Constant, 25°C, ASTM D150	2.75

CHEMICAL RESISTANCE PROPERTIES:

		% Initial Strength Retained	
Chemical	**Temperature**	***500 hours***	***1000 hours***
Isopropanol	22°C	85	85
Petrol	22°C	80	75
Motor Oil	40°C	90	90
Mineral Spirit	22°C	90	90

APPLICATION INSTRUCTIONS:

- All surfaces must be clean, dry, dust and grease free. Best result will be achieved with surfaces that have been lightly abraded immediately prior to bonding.
- If using accelerator apply to one component surface only. Apply thin film of adhesive to the other surface and bring the pieces together immediately. Hold for few seconds without disturbing the joints.
- When bonding 'O' rings, cut a fresh surface onto each end of the rubber to gain the best possible strength.

PRECAUTIONS:

This product is capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the material.

WARRANTY:

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