

Master Bond X17MED Elastomer Compound for Medical Device Applications

Category : Polymer , Adhesive

Material Notes:

Description: Master Bond Polymer System X17MED is a specially formulated one component adhesive specially designed for bonding polyolefins such as polypropylene and polyethylene as well as their many copolymers and blends. This synthetic elastomer-based adhesive compound exhibits a balance of both shear and peel properties when bonding polyolefin substrates to each other and to related substrates including flexible PVC. Master Bond Polymer Systems X17MED contains 24% solids and has a carefully formulated solvent blend which readily evaporates as cure proceeds. X17MED works best when surfaces are mated immediately after the application of adhesive to each substrate. An initial set occurs readily in Master Bond X17MED upon evaporation of less than 25% of the solvent. The strength of this initial set usually suffices to maintain the assembly in position for handling. Bond strength increases sharply as evaporation of the solvent progresses and with some adherents, it might approach the strength of the substrate materials. Maximum bond strength is obtained upon complete evaporation of the solvent. Optimal performance bonds can be obtained at ambient temperatures within 12-24 hours. Although adding heat is not obligatory for curing, application of heat (120°F-180°F) will greatly accelerate the rate of cure and also increase final bond strengths significantly. All substrates should be free of grease, dirt, oil and other contaminants for best results. Conventional cleaning methods such as solvent washing and vapor degreasing are recommended for maximum bond strength. The X17MED adhesive performs best when gaps are minimal. This product is also an effective primer for polyolefin surfaces such as polyethylene and polypropylene in conjunction with adhesives such as epoxies, urethanes, etc. Master Bond Polymer System X17MED is a readily flowable clear liquid. It can be further thinned with ketone and aromatic solvents. Cured Master Bond Polymer X17MED adhesive retains its outstanding strength properties even after prolonged exposure to water and many other chemicals including alcohols and aliphatic hydrocarbons. Cross hatch tape adhesion tests have given outstanding results after merely air dry curing methods. Master Bond Polymer System X17MED offers a simple to use, technically effective solution to the problem of bonding polyolefin substrates. It represents a major advance in the formulation of high performance polyolefin bonding systems. Since Master Bond X17MED contains volatile solvents, it must be employed in a ventilated area taking all necessary precautions for handling flammable adhesive materials. Information provided by MasterBond®

Order this product through the following link:

http://www.lookpolymers.com/polymer_Master-Bond-X17MED-Elastomer-Compound-for-Medical-Device-Applications.php

Physical Properties	Metric	English	Comments
Specific Gravity	0.920 - 0.940 g/cc	0.920 - 0.940 g/cc	
	1.20 g/cc	1.20 g/cc	solids
Solids Content	22 - 26 %	22 - 26 %	
Water Absorption	<= 0.50 %	<= 0.50 %	

Thermal Properties	Metric	English	Comments
Glass Transition Temp, Tg	30.0 °C	86.0 °F	

Optical Properties	Metric	English	Comments
Gardner Color Number	<= 2.0	<= 2.0	at 24% solids

Optical Properties	Metric	English	Comments
Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	

Processing Properties	Metric	English	Comments
Cure Time	720 - 1440 min @Temperature 23.9 °C	12.0 - 24.0 hour @Temperature 75.0 °F	
Shelf Life	6.00 Month @Temperature 23.9 °C	6.00 Month @Temperature 75.0 °F	in original unopened container

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