

## Master Bond EP21TDC-4ND Two component, highly flexibilized epoxy for bonding, sealing and coating

Category : Polymer , Thermoset , Epoxy , Epoxy Encapsulant, Unreinforced

### Material Notes:

**Product Description:** Master Bond EP21TDC-4ND is a two component, very flexible epoxy system for high performance bonding, sealing and coating with a non-drip consistency. It has a one to four mix ratio by weight. EP21TDC-4ND has a room temperature cure that can be accelerated by adding heat. The best cure schedule is overnight at room temperature followed by 3-4 hours at 150-200°F. A peculiar feature of this product is that straight heat curing results in a product that is slightly softer (Shore A 60), than the one with the optimum cure (Shore A 75). The cured system has a peel strength greater than 30 pli and an elongation of over 200%. EP21TDC-4ND bonds well to a wide variety of metals, plastics and especially rubbers. In fact, it may adhere well to untreated rubber materials such as neoprene, nitrile, SBR and occasionally EPDM rubber compounds; materials that normally require time consuming surface preparation. The cured system has solid electrical insulation properties along with good chemical resistance to oils and water. The epoxy has good resistance to aggressive thermal cycling along with great resistance to mechanical shock and vibration. EP21TDC-4ND has an exceptionally long open time greater than 90 minutes. It has a service temperature range of -100°F to +250°F, low temperature serviceability. It is widely used in OEM, electrical, electronic, repair and maintenance type applications. **Product Advantages:** Convenient mixing: non-critical, one to four mix ratio, by weight, available in premeasured kits Smooth paste viscosity; non-drip type system Versatile cure schedules: ambient temperature cures or faster elevated temperature cures High peel strength and exceptionally robust resistance to thermal cycling and shock Bonds especially well to rubber including neoprene, nitrile, SBR and occasionally EPDM Outstanding resistance to thermal cycling Information provided by MasterBond®

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Master-Bond-EP21TDC-4ND-Two-component-highly-flexibilized-epoxy-for-bonding-sealing-and-coating.php](http://www.lookpolymers.com/polymer_Master-Bond-EP21TDC-4ND-Two-component-highly-flexibilized-epoxy-for-bonding-sealing-and-coating.php)

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	75 - 80	75 - 80	using the optimum cure schedule
Tensile Strength at Break	>= 20.7 MPa @Temperature 23.9 °C	>= 3000 psi @Temperature 75.0 °F	
Elongation at Break	<= 200 %	<= 200 %	
Tensile Modulus	0.689 - 1.03 GPa @Temperature 23.9 °C	100 - 150 ksi @Temperature 75.0 °F	
Shear Strength	>= 5.86 MPa @Temperature 23.9 °C	>= 850 psi @Temperature 75.0 °F	AI/AI, Tensile lap
Peel Strength	>= 5.26 kN/m	>= 30.0 pli	T-peel

Thermal Properties	Metric	English	Comments
CTE, linear	110 - 130 µm/m-°C	61.1 - 72.2 µin/in-°F	

Thermal Properties	Metric	English	Comments
Minimum Service Temperature, Air	-73.3 °C	-100 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	

Processing Properties	Metric	English	Comments
Cure Time	180 - 240 min	3.00 - 4.00 hour	
	@Temperature 93.3 °C	@Temperature 200 °F	
	240 - 300 min	4.00 - 5.00 hour	
	@Temperature 23.9 °C	@Temperature 75.0 °F	
	720 min	12.0 hour	Followed by 2-3 hours at 150-200°F (Optimum Cure Schedule)
	@Temperature 23.9 °C	@Temperature 75.0 °F	
Pot Life	>= 90 min	>= 90 min	100 gram mass
Shelf Life	12.0 Month	12.0 Month	in original unopened containers
	@Temperature 23.9 °C	@Temperature 75.0 °F	

Descriptive Properties	Value	Comments
Mixing Ratio (A to B)	1:4	by weight

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China