

TECHNICAL DATA

ThreeBond 2285D

One Component Epoxy Adhesive

Three Bond 2285D is a one-component epoxy resin, which has the excellent properties of epoxy resin such as strong adhesive strength, chemical resistance, electrical properties, mechanical strength, etc. It contains more than 99% non-volatile matter, so there is minimal contraction while curing and it ensures a safe working environment, as no solvent is present.

Features

- Supreme heat resistance
- Excellent strength at high temperature
- Excellent permeability during heating

Application

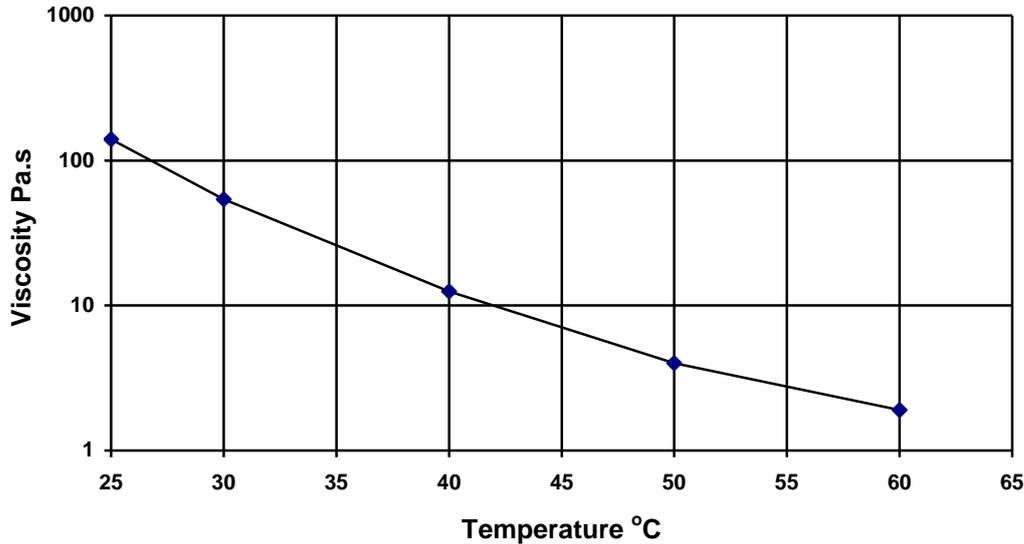
- For impregnating and fixing motor coils

Properties before cure

Test item	Unit	2285D	Test method	Remarks
Appearance	-	Milky White Paste	3TS-201-01	-
Viscosity	Pa.s	140	3TS-210-02	At 25°C
Specific gravity	-	1.56	3TS-213-02	At 25°C
Standard curing condition	-	150°C x 30min or 120°C x 60min	-	-
Shelf life at 5~10°C	Month	7	-	-

All recommendations and statements are based on our research and we believe them to be reliable. We cannot guarantee the results obtained through the use of our products. All products are sold and samples are given without warranty, expressed or implied, of fitness for any particular purpose or otherwise. The user shall make his own tests to determine the suitability of the product for his purpose. No agency or representative or employee of this company is authorised to change this provision.

Changes in Viscosity with Temperature



Properties after cure

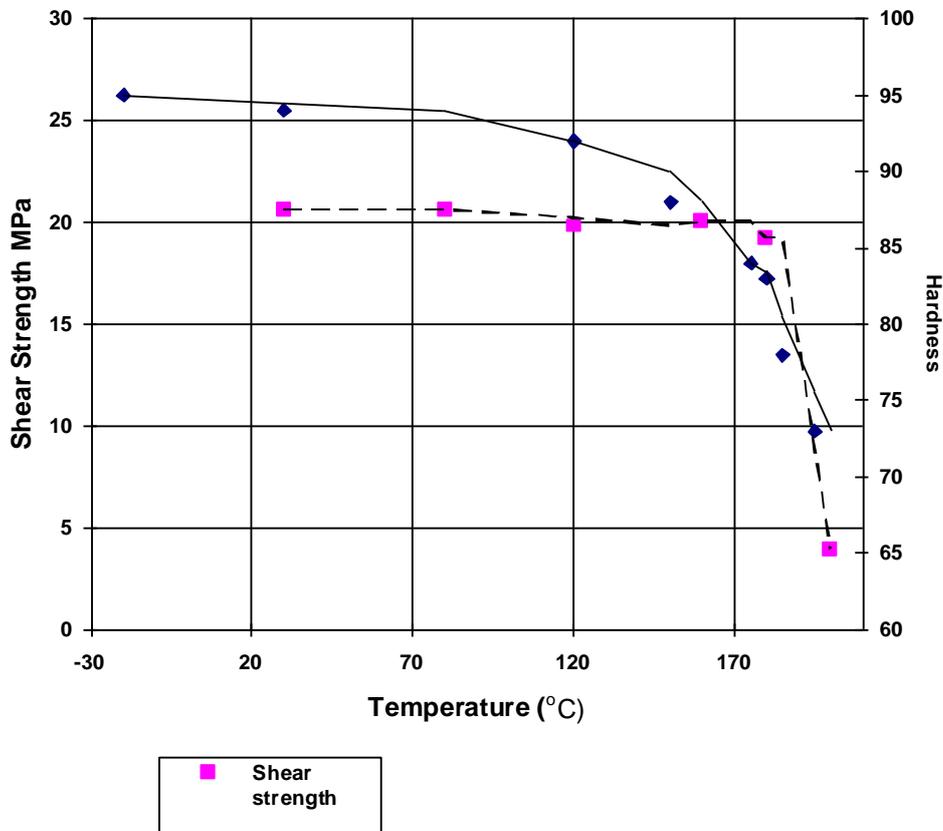
Items	Unit	2285D	Test method	Remarks
Shear strength (Fe/Fe)	MPa	21	3TS-301-11	At 25°C
Hardness	Shore D	94	3TS-215-01	At 25°C
Glass Transition Point	°C	180	3TS-501-05	DMA Analysis
CTE (before Tg)	/°C	33	3TS-501-05	
Water absorption	%	+0.47		1hr boiling water
Volume resistivity	$\Omega.m$	2.3×10^{18}	3TS-401-01	
Dielectric constant at 1MHz	-	3.5	3TS-405-01	
Dielectric dissipation factor at 1MHz	-	0.021	3TS-405-01	
Breakdown voltage	kV/mm	20	3TS-406-02	
Arc resistance	s	150	-	
Compression strength	MPa	213	-	

Variation of Shear Strength and Hardness with Temperature After Curing.

Tests were conducted to examine the ability of the cured resin to withstand high temperature. The following data are the results.

Temperature (°C)	Shear Strength MPa {kg/cm ² }	Hardness	Remarks
-20		95	Cure at 150°C x 1h
RT	20.60 {210}	94	
80	20.60 {210}		
120	19.82 {202}	92	
150		88	
160	20.01 {204}		
175		84	
180	19.23 {196}	83	
185		78	
195		73	
200	3.92 {40}		

Variation of Shear Strength and Hardness with Temperature after curing for TB 2285D



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Handling Precautions

- It is important to remove dirt, grease, oil, rust, paint and old oxide film from the surfaces, which are to be bonded by degreasing, polishing and/or acid etching. This will ensure that optimal bonding can be achieved. Bonding must be done as soon as the surface is prepared.
- The curing conditions are stated above, please follow the given temperatures and times to obtain optimal adhesion.
- The curing temperature is subject to the type, size and thermal capacity of adherents. Hence, the curing temperature cannot be fixed uniformly. Please confirm the optimum curing condition before use.
- TB 2285D is a single component epoxy adhesive. Storing at high temperature over a long period is not advisable; as it will result in the decrease in thixotropic properties, increase in viscosity, sedimentation of filler and reduction in the curing ability.
- Store in a cool and dark place. Effective storage period is 7 months at 5 - 10°C.
- This compound may cause inflammation when it comes into contact with sensitive skin for a prolonged period. If the compound comes into contact with skin, wipe off with paper towel or cloth. Wash affected area with warm, soapy water.
- For industrial use only.

Shelf Life

7 months unopened and stored at 5 - 10°C.

Packaging

TB 2285D, available in sizes of 1kg and 20kg can.

Disclaimer

For Industrial Use Only

(Do not use for household purposes)

- The data contained in this report are obtained from experimental results, based on our test methods. We cannot assume absolute responsibility for accuracy and safety. Before using this product, use your own judgement to determine whether or not this product meets the requirements of the application and objectives. This includes the burden of responsibility and hazardous danger. The extent of the guarantee provides replacement for products, which are clearly unsatisfactory.
- We assume responsibility for neither injury nor property damages resulting from the misuse of this product.
- We do not assume responsibility without written notice or contract.

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