1996. 04. 01 Three Bond Co., Ltd.

Technical Data

ThreeBond 1305N

Anaerobic sealant

1. Outline

ThreeBond 1305N is a quick hardening and high strength anaerobic sealant. The product does not get hardened while in contact with air and gets quickly polymerized and hardened when it enters a binding part of metal parts. It seals and prevents screws or the like from loosening.

2. Characteristics

- (1) Quick hardening, high strength
- (2) Good low-temperature hardening
- (3) Good adhesion for inert materials (includes plating)
- (4) Medium degree viscosity, good workability
- (5) Imparted lubricating property

3. Application

Permanent adhesion and sealing of metal screw parts

4. Property

4.1 When liquid

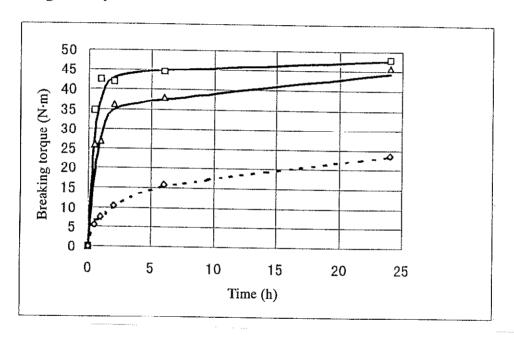
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Test item	Unit	ThreeBond 1305N	Test method	Note
Main ingredient	-	Methacrylic acid ester monomer		
Appearance	•	Green transparent	3TS - 201 - 01	
Viscosity	mPa·s{cP}	650 {650}	3TS - 210 - 01	
Specific gravity	-	1.11	3TS - 213 - 02	
Flash point	°C	Not less than 100		

4.2 After hardening

Test item	Unit	ThreeBond 1305N	Test method	Note
Main ingredient	-	Poly methacrylate resin		
Appearance	-	Green	3TS - 201 - 01	
Range of working temperature	°C	- 40°C to 150		
Breaking torque	N·m{kgf·cm}	47.9 {488}	3TS - 306 - 01	25°C x 24 hr

5. Hardening velocity



□ 25°C

 Δ 5°C

O *)Undermentioned

Test conditions:

Test piece: Mild steel bolt/nut, M10, Pitch 1.5, Coarse

ThreeBond 1305N is applied on the test piece and cured as tightened at 0 N·m under 25°C and 5°C, and the breaking torque is measured at each hour.

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*) Traditional adhesive at 5°C (ThreeBond 1305)

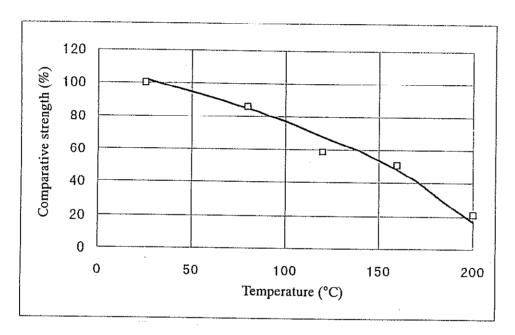
6. Adhesive strength by material

Material	Breaking torque N·m{kgf·cm}		
Iron material (mild steel)	47.9 {488}		
Zinc chromate plating	14.7 {150}		
Uni chromate plating	34.1 {348}		
Nickel plating	31.6 {322}		
Chromate plating	15.5 {158}		
Stainless 304	30.9 {315}		
Aluminum	Material breaking		
Brass	39.6 {302}		

Test conditions:

ThreeBond 1305N is applied on the bolt/nut of each of the materials (the size is the same as the above) and after curing as tightened at 0 N·m under 25°C for 24 hours, the breaking torque is measured.

7. Strength when heating

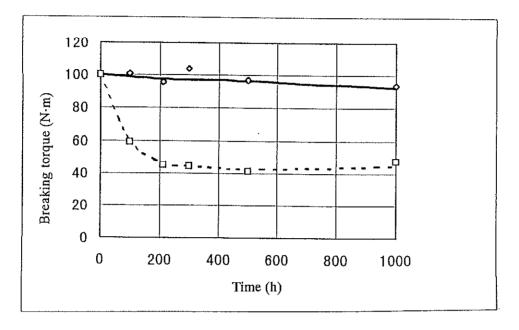


Test conditions

ThreeBond 1305N is applied on the aforementioned mild steel bolt/nut, cured as tightened at 0 N·m under 25°C for 24 hours, left under each temperature for 1 hour, and the breaking torque is measured under the temperature.

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8. Thermal deterioration



♦ 80°C

□ 120°C

Test conditions

ThreeBond 1305N is applied on the aforementioned mild steel bolt/nut, cured as tightened at 0 N·m under 25°C for 24 hours, left under each temperature for 1 hour, taken out at each hour and left for 1 hour under 25°C, and the breaking torque is measured.

9. Precautions for handling

For industrial use

(Never use for household use)

- 1) As for the technical data listed herein, the values are of the test methods of our company and fully reliable, but we cannot absolutely guarantee the correctness and safety. Users are requested to make sure that the product is in conformity with the application and purpose before use.
- 2) We cannot take any responsibility for injuries and losses incurred by mishandling of the product.
- 3) The hardening velocity varies according to the factors including types of materials, clearance and moisture. Use after confirmation of them.
- 4) The product is hazardous that users avoid directly coming into contact with and inhalation of the vapor. In case of adherence to the skin, it may cause inflammation. When adhered to the skin, immediately wipe out with cloth or paper and wash with soapsuds. In case of coming into contact with the eyes, wash the eyes with clean running water for about 15 minutes and consult a physician.
- 5) For handling, wear protective equipments such as a protective mask, protective gloves (permeation-proof) and goggles, and use in the open air under good ventilation or in a place where a local ventilator is installed.
- 6) In case of occurrence of abnormalities to the human body in use, discontinue handling and consult a

physician.

- 7) Since the product contains hazardous materials, it cannot be used for piping for water supply and hot water supply. Use the product after full confirmation that the utilization and application are appropriate.
- 8) Do not move the adhesive into another container and do not return the product unused to the original container.
- 9) The product may incur bad effects (crack, corrosion, melting, or the like) depending on the material. Beforehand, confirm the effects on the place to be applied and the peripheral places, and in case there are problems, do not use.
- 10) In order to avoid decomposition and mixing in of foreign matters, keep the container tightly closed after use.
- 11) Store the product in the place under temperature 5 25°C without direct sunshine.
- 12) For application with an applicator, avoid use of a metal product for nozzle.
- 13) The product is classified into Petroleum No. 3 of Class No. 4 under the Fire Services Act. The danger of catching a fire is low, but take full precautions in storage and handling.

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