



## TECHNICAL DATA

### ZYROBOND®

#### AN 3542

#### **Anaerobic Thread Sealant** **(Hydraulic & Pneumatic Sealant)**

AN 3542 is a medium strength anaerobic thread sealant designed for securing and sealing metal pipes and fittings required to withstand high stress.

AN 3542 does not contaminate hydraulic fluid and keeps fine filter systems free. Not recommended for use in combination with copper alloys and warm water above +40°C.

AN 3542 cures very quickly in the absence of oxygen with simultaneous metal contact. The product possesses high resistance to chemicals, solvents, gas, liquid gas, water and hydrocarbons.

#### **APPLICATIONS:**

- Especially for fine threads and fittings.
- For hydraulic and pneumatic connections.

#### **Adhesive Properties:**

Composition:	Methacrylate Ester
Colour:	Brown
Viscosity: (Brookfield RVT Spindle 3 @ 20 rpm)	525 - 1850 cps @ 25°C
Specific Gravity:	1.06
Thread Ø / Gap Fill:	R¾" (NW20) / 0.20 mm
Flash Point:	> 100°C

#### **Curing Properties:**

Working Time:	10-30 min.	
Functional Cure:	2 - 4 hrs.	
Full Cure:	24 hrs.	
Breakaway Torque:	(M10 steel nuts & bolts) 15 N.m.	ISO 10964
Prevail Torque:	(M10 steel nuts & bolts) 9 N.m.	ISO 10964
Breakloose Torque		
Pre-torqued to 5 N.m:	(M10 steel nuts & bolts) 25 N.m.	ISO 10964
Max. Prevail Torque		
Pre-torqued to 5 N.m:	(M10 steel nuts & bolts) 25 N.m.	ISO 10964
Compressive		
Shear Strength:	(M10 steel nuts & bolts) > 6.5 N/mm²	ISO 10123
Temperature Resistance:	-55 to +150°C	



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#### Physical Properties:

Coefficient of Thermal Expansion:	$80 \times 10^{-6}$	ASTM D 696, K-1
Coefficient of Thermal Conductivity:	0.10	ASTM C 177, W/(m·K)
Specific Heat:	0.30	kJ/(kg·K)

#### Chemical Resistance:

Material	Temperature	% Initial Strength Retained	
		500 Std.	1000 Std.
Acetone:	22°C	80	80
Ethanol:	22°C	100	95
Motor Oil:	125°C	100	100
Petrol/Gasoline:	22°C	100	95
Brake Fluid:	22°C	100	95
Water/Glycol:	87°C	90	90

#### Instructions for use:

The surface must be clean, dry and free of contaminants such as oil or grease. Apply the product to the thread in a 360° ring, the first thread should be left free. Ensure that the spacing between the threads is sufficiently filled. For coarse threads it is also recommended to apply the product to the internal thread. Screw the joint together until the alignment is correct as usual and remove any product residue. Properly tightened connections possess an immediate sealing effect against low pressures.

Disassembly: Low and medium strength anaerobic adhesives can be disassembled using standard hand tools. High strength anaerobic adhesives must be heated to 250°C - 300°C.

Cleaning: Insert the cured product in solvent and then mechanically remove.

For maximum pressure and solvent resistance, allow the product to harden for at least 24 hours.

#### Storage

Anaerobic adhesives should be stored in a cool, dry place at a room temperature between 8°C to 28°C. The shelf life is at least 1 to 2 years (depending upon storage conditions). Product residue should not be returned to the original container, in order to preserve the original properties.

**Additional Information:** 1.) Permanently installed connections may not be realigned. Should it be necessary to remove the thread, it must be completely removed and cleaned, then the fitting can be sealed again using a fresh product application. As a realignment of pre-assembled threaded connections is not possible, this product, along with other liquid or anaerobic sealants is not to be used for gas installations according to DVGW-TRGI. 2.) This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials. Stress cracking can occur when used on thermoplastic. It is recommended to test compatibility on plastics before use.

**General information:** The information contained herein serves merely as an indication and is given to the best of knowledge. The users must test the suitability of the product for her/its/their respective application independently however. All products purchased from or supplied by Nohtec are subject to terms and conditions set out in the contract. Nohtec warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Nohtec is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Nohtec makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will infringe any patent.