

MTLS / ADHESIVES & SEALANTS

FNHA-2-E-069.00

SEALANT - GASKET ELIMINATOR**1. SCOPE**

1.1 This specification describes a ready-to-use, one part, gel-like material which cures at room temperature between metal surfaces in the absence of air. This sealant fills and seals surface imperfections providing a tough, resilient seal that flexes with flange movement. This sealant can be used with standard 86527120 (FNHA-2-E-069.05) to accelerate curing.

1.2 This specification may involve hazardous materials, procedures and apparatus. This specification does not address the health and safety problems associated with its application or use. It is the specification user's responsibility to follow appropriate health or safety practices and determine the application or regulatory limitation before use.

2. APPLICATION

This specification was originally released to provide a sealant for rough or non-machined surfaces and pre-cut gaskets. The sealant can replace most gaskets up to .030" in thickness decreasing cut gasket inventories and machining operations.

Gasket Eliminator seals all surface imperfections and can be used to coat hard or soft cut gaskets to improve sealing performance. It seals most common industrial fluids and reduces gasket compression set and bolt loosening.

This sealant can be applied to vertical surfaces without migration and does not crack or shrink during cure. No mixing is required and no curing occurs outside the joint.

Manufacturing application requirements for good bonding shall be described in standard 86527126 (FNHA-4-C-002.00).

3. DESIGNATION

The Engineering drawing shall contain the following notation for the specification of the subject sealant. The quantity shall be noted and the unit of measure shall be in milliliters (ML). As described in standard 86511126 (FNHA-3-B-100.00), the Applicable Standards blocks will each include a space for one standard. The part number shall be the number of this specification and the name shall be the name of this specification.

4. RELATED SPECIFICATIONS**4.1 REFERENCE STANDARDS**

ASTM D412 - Test Method for Vulcanized Rubber and Thermoplastic Rubbers and thermoplastic Elastomers-tension.

ASTM D1002 - Test Method for Strength Properties of adhesives in shear by Tension loading (metal-to-metal).

ASTM D4562 - Test Method for Shear Strength of Adhesives Using Pin-and-Collar Specimen.

86527120(FNHA-2-069.05) - Primer 7649

86527126(FNHA-4-C-002.00) - Anaerobic Adhesive Application

86511126(FNHA-3-B-100.00) - Specifying and Referencing Standard Numbers on Drawings

4.2 This standard replaces the following company standard:

FORD

WSK-M2G348-A4

					NAME	STD SEALANT GASK ELIM 515		
					 NEW HOLLAND	ENGINEERING SPECIFICATION		
						THE INFORMATION HEREON IS THE CONFIDENTIAL AND PROPRIETARY PROPERTY OF NEW HOLLAND NORTH AMERICA, INC. AND/OR NEW HOLLAND CANADA, LTD. ANY USE, EXCEPT THAT FOR WHICH IT MAY BE LOANED, IS PROHIBITED.	FRAME 1	OF 5
							PART NUMBER	
ALL	C	RLF	110244	7/97	 NEW HOLLAND			
ALL	B	RE	106814	8/97				
FRAME NO.	REV	BY	ECN NO.	DATE				
APP.	DRAWN		NE	JUN 95				
KHH AUG 95	CHECKED							

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5. REQUIREMENTS

5.1 MATERIAL

The material shall be a compound composed of polyurethane methacrylate resin. A small amount of acrylic acid contained in the adhesive may cause irritation to the eyes, nose and throat. The material has a smooth, plastic consistency which will cure to form a flexible methacrylate polymer.

5.2 PHYSICAL AND MECHANICAL PROPERTIES

Typical physical and mechanical requirements are listed in Table 1.

5.3 CURING SPECIFICATIONS

Pressurized Cure - Using .375" wide steel flanges with gaps of 0.000", 0.005", and 0.010"

Figure 1 illustrates the cure time needed under pressure. Primer was used and a time of 24 hours was allowed for curing.

A Primer is needed when the surfaces are inactive, the gaps are over 0.010" up to 0.050", or when the temperature during cure is below room temperature.

Inactive Surfaces

Zinc	Bright platings
Magnesium	Anodized Surfaces
Stainless Steel	Passivated Surfaces
Cadmium	Titanium
Pure Aluminum	

Heat Cure- Can be used to overcome gap or inactive surface as follows:

GAP	CURE TIME @250°F (120°C)
.020"(.15MM) to .030"(.76mm)	2 hrs.
.050"(1.27mm)	3 hrs.

5.4 CHEMICAL RESISTANCE

The subject adhesive is not recommended for use in pure oxygen and/or oxygen rich system and should not be selected as a sealant for chlorine or other strong oxidizing materials.

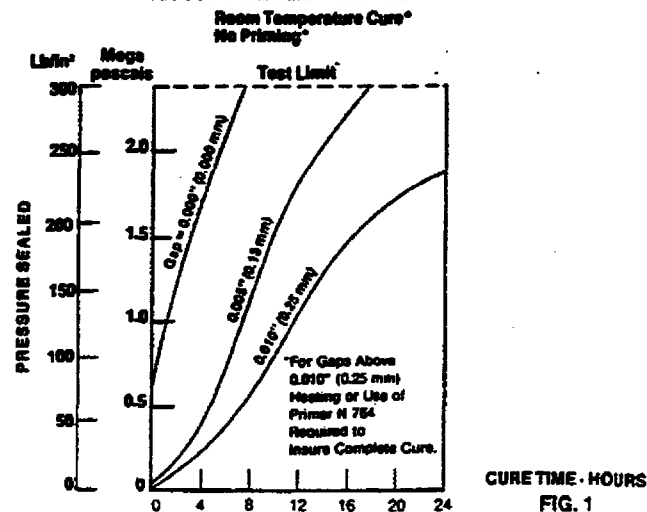
The sealant can be used in conjunction with all metals, glass, ceramics and many thermoset plastics such as phenolic and polyester. Liquid adhesive will, however, soften and sometimes craze thermoplastics.

5.5 SOLVENT RESISTANCE

Changes in weight and hardness were taken after cured sections of Gasket Eliminator were submerged in various solvents for 15 days at 188°F (86.7°C).

SOLVENT	%WT CHG	SHORE "A" BEFORE	HARDNESS AFTER
Water	6	90	90
10W30 Motor Oil	0	90	90
Isopropyl	25	90	82
Unleaded Gas	31	92	86
Toluene	38	90	86
1,1,1 Trichloroethane	50	91	72
Phosphate Ester Oil	46	90	87

PRESSURE SEALED vs. CURE TIME



NAME

STD SEALANT GASK ELIM 515

ENGINEERING SPECIFICATION

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CFRAME
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PART NUMBER

86525268