



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

GASKET, CELLULOSE FIBER/NEOPRENE

ESE-M8G93-A

1. SCOPE

The material defined by this specification is a cellulose fiber, neoprene rubber impregnated, gasket material.

2. APPLICATION

This specification was released originally for material used as a gasket to attach parts to the cylinder block such as front cover, water pump and road draft tube.

3. REQUIREMENTS

All tests shall be conducted in accordance with ASTM F 104, unless otherwise specified.

3.1 COMPRESSIBILITY 15 - 30 %
(ASTM F 36, 6.9 MPa load)

Recovery, min 55 %
(ASTM F 36, 138 kPa)

3.2 TENSILE STRENGTH, min 17.2 MPa
(ASTM F 152)

3.3 IMMERSION IN LIQUIDS
(ASTM F 146, 22 h at 23 +/- 2 C)

Immersion Fluid	Weight Change, max	Thickness Change, max
ASTM Oil No. 3	55 %	15 %
ASTM Fuel "B"	55 %	20 %
Distilled Water	65 %	45 %

3.4 INFRARED SPECTROPHOTOMETRY AND/OR THERMAL ANALYSIS

Ford Motor Company, at its option, may conduct infrared and/or thermal analysis of material/parts supplied to this specification. The IR spectra and thermograms established for initial approval shall constitute the reference standard and shall be kept on file at the designated material laboratory. All samples shall produce IR spectra and thermograms that correspond to the reference standard when tested under the same conditions.

Date	Release No.	Released
1994 02 21	NE01-E 10127076-117	Revised 3.1 & updated E. Duda
1978 07 14	CE3HRD782440E	Metricated, Renumbered & Retyped
1968 08 02	E7-2746	Released

E. Duda
2.16.9

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3.5 CONDITIONING AND TEST CONDITIONS

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

3.6 STATISTICAL PROCESS

Suppliers must conform to the requirements of Ford Quality System Standard Q-101. A mutually acceptable Control Plan as described therein is required for material/source approval. Appropriate statistical tools must be used to analyze process/product data so that variation in the final product is continuously reduced.

3.7 SUPPLIER'S RESPONSIBILITY

All materials supplied to this specification must be equivalent in all characteristics to the material upon which approval was originally granted.

Prior to making any change in the properties, composition, construction, color, processing or labeling of the material originally approved under this specification, whether or not such changes affect the material's ability to meet the specification requirements, the Supplier shall notify Purchasing, Toxicology and the affected Materials Engineering activity of the proposed changes and obtain the written approval of the Materials Engineering activity. Test data, test samples and a new code identification are to be submitted with the request.

Substance restrictions imposed by law, regulations or Ford, apply to the materials addressed by this document. The restrictions are defined in Engineering Materials Specification WSS-M99P9999-A1.

4. APPROVAL OF MATERIALS

Materials defined by this specification must have prior approval by the responsible Materials Engineering activity. Suppliers desiring approval of their materials shall first obtain an expression of interest from the affected Purchasing, Design and Materials Engineering activity. Upon request, the Supplier shall submit to the affected Materials Engineering activity a completed copy of their laboratory test reports, signed by a qualified and authorized representative of the test facility, demonstrating full compliance with all the requirements of this specification (test results, not nominal values), the material designation and code number, and test specimens for Ford evaluation. Ford's engineering approval of a material will be based on its performance to this specification and on an assessment of suitability for intended processes and/or applications. Upon approval, the material will be added to the Engineering Material Approved Source List.

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