



EP 8140/70U

Silicone Elastomer for Oil Resistant applications. Data Sheet

PRODUCT DESCRIPTION

GE Bayer Silicones' EP8140/70U is a 70 durometer non-post cure Silicone Elastomer specially developed for the applications which demand superior oil resistance. This grade is designed for manufacturing oil resistant parts such as oil seals and crank shaft seals, which have to perform continuously at elevated temperatures. EP8140/70U is supplied in uncured form so that it can be catalysed with appropriate vulcanising agents and can be further processed. When properly compounded and catalysed, EP8140/70U also exhibits excellent mechanical properties.

APPLICATIONS

- O-rings and other oil sealing applications.
- Shaft and Valve seals.
- Long term oil resistant applications

KEY PRODUCT FEATURES

- Excellent processability by compression and injection molding
- Excellent long term oil aging stability
- Good mechanical and heat aging properties.
- Post curing not needed (NPC)

TYPICAL PRODUCT DATA

Typical Properties of Uncured Compound

Property	Value
Specific Gravity (± 0.05)	1.23
Appearance	Off- white
Polymer Classification (ASTM D -1418)	VMQ

TYPICAL PRODUCT PROPERTIES

The following data was obtained on compression moulded 2 ± 0.2 mm ASTM sheets of EP8140/70U elastomer, compounded and catalysed in the laboratory.

Typical Properties of Cured Compounds :		
ASTM TEST	PROPERTIES	TYPICAL VALUES
Formulations of Test Specimens EP8140/70U Curing agent Dicumyl peroxide (40% active paste) Cure Conditions		100 parts 1.0 part 15 min at 175°C
D-2240	Hardness, Shore A (± 5)	70
D-412	Tensile Strength, (MPa.)	9.0
D-412	Elongation, (%)	250
D-624	Tear Strength, die B, (kN/m)	20
AGEING IN AIR OVEN(70hrs. At 200 °C)		
D-573	Change in Hardness, Shore A Change in Tensile Strength(%) Change in Elongation (%)	+5 ± 10.0 ± 20.0
AGEING IN ASTM1OIL(70hrs. At 150 °C)		
D-573	Change in Hardness, Shore A Change in Tensile Strength(%) Change in Elongation (%) Change in Volume (%)	-10 -10.0 -10.0 +5
AGEING IN ASTM2OIL(70hrs. At 150 °C)		
D-573	Change in Hardness, Shore A Change in Tensile Strength(%) Change in Elongation (%) Change in Volume (%)	-10 - 10.0 - 10.0 + 10
AGEING IN ASTM3OIL(70hrs. At 150 °C)		
D-573	Change in Hardness, Shore A Change in Tensile Strength(%) Change in Elongation (%) Change in Volume (%)	-20 - 20.0 - 20.0 + 40
AGEING IN SAE30 OIL(70hrs. At 150 °C)		
D-573	Change in Hardness, Shore A Change in Tensile Strength(%) Change in Elongation (%) Change in Volume (%)	-13 - 10.0 - 10.0 + 15

SPECIFICATIONS

Typical property data values should not be used as a basis for product specifications. Assistance and recommendations are available by contacting GE Bayer Silicones India (GEBSI).

HANDLING AND SAFETY

During the vulcanisation and oven curing of this product, small amounts of rubber base volatiles and peroxide decomposition products are released. Work areas must be well ventilated and workers must avoid inhalation of these toxic vapours.

Material Safety Data Sheets are available upon request from GEBSI. Similar information on vulcanizing agents and other chemicals used with GE products should be obtained from your suppliers.

STORAGE WARRANTY PERIOD

The warranty period is 6 months from the date of shipment if stored in the original unopened container below 27°C (80°F). Re-testing after 6 months is recommended to assure typical performance.

AVAILABILITY

EP8140/70U may be ordered from GE Bayer Silicones Sales office nearest you or an authorized GE Bayer Silicones product distributor.

LIMITED WARRANTY

GEBSI warrants that its product will conform to GEBSI specifications at the time of application or use. The product must be stored in accordance with GEBSI recommendations, and used or applied before the earliest of (1) the indicated "Use Before Date", (2) one year from date of purchase, or (3) expiration of such other period or recommended storage time stated in the GEBSI product literature. If notified, in writing, of a claim within one month of the product's use or application, GEBSI will, at its option, replace or refund the purchase price of any GEBSI product which does not satisfy the foregoing warranty.

GE Bayer Silicones (India) Pvt. Ltd.
No. 275, 4th Cross, 4th Main
4th Phase, Peenya Industrial Area
BANGALORE - 560 058/
Phone : 080-8398691, 8399066
Fax : 080-8399312