

	NOV SARA ENGINEERING SPECIFICATION	
	Section: SES 26 – 320	
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	Effective Date: 20.10.2011	Page: 1 of 1

MATERIAL SPECIFICATION
FOR HOMOGENOUS NBR (NITRILE) ELASTOMER

1.0 PURPOSE

1.1 It is the purpose of material specification to list in a concise form of the material requirements for NBR Homogenous Elastomers to be used in General Service at temperature from – 20° F to +250 °F.

1.2 This material specification is intended to aid the purchasing department in procuring and the vendor in supplying a product which meets the needs of its intended use, and the quality control department in the inspection and release of incoming material.

2.0 SCOPE

2.1 This material specification covers general services, medium- high CAN, sulfur cure compounds recommended for service with petroleum oils and fuels, water, glycols and silicones. They are not recommended for service with ketones, esters, Amines or halohydrocarbones.

3.0 **Chemical composition:** The standard formulas for Nitrile Rubber compounds are in ASTM D-2934 Table-1, they may be modified to meet the various requirements of ASTM-2000, Table -6 BG materials.

4.0 **Physical Properties:** The ASTM standard specifications to determine the physicals are given below.

PROPERTIES	RANGE
HARDNESS (D-2240) Shore “A” Durometer	70/80/90 $\pm$ 5 Pts.
TENSILE STRENGTH (D-412) Min.	2,000 PSI (MPa)
ELONGATION (D-412) Min.	220%
100% Modules (D-412) Min.	920 PSI
TEAR (D-624) DIE C Min.	220 PPI
COMPRESSION SET (D-395) Max.	
70 HRS @ 212° F	24%
70 HRS @ 257° F	46%

5.0 **IDENTIFICATION:** The Elastomers shall be dyed black throughout.

6.0 DOCUMENTATION REQUIRED

7.1 Each shipment shall be accompanied by material certifications for each lot of material, the certifications must be positively relatable to the lot of material represented.

