
	CPC ENGINEERING SPECIFICATION	
	SECTION SOP	Doc. No. CES-26-125
	ISSUE "A"	REV "0"
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MATERIAL SPECIFICATION FOR HOMOGENOUS NBR
(NITRILE) ELASTOMER.

Rev	Reason of Change	Date	Prepared By	Reviewed By	Approved By	Status
0	Initial issue	16-02-2024	PK	USR	JG	Released



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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 ±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 FIRS @ 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.

