

**CPC ENGINEERING SPECIFICATION**

SECTION SOP	Doc. No. CES-26-125
ISSUE "A"	REV "0"
DATE: 16-02-2024	Page 1 of 2

**MATERIAL SPECIFICATION FOR HOMOGENEOUS 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



**CPC ENGINEERING SPECIFICATION**

SECTION SOP	Doc. No. CES-26-125
ISSUE "A"	REV "0"
DATE: 16-02-2024	Page 2 of 2

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 halohydrocarbons.

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.

