NEOPRENE-70 O-RING

MATERIAL: Neoprene (Chloroprene Rubber)

MATERIAL DESCRIPTION

Chloroprene (CR), also known by its trade name "Neoprene", was one of the first successful synthetic elastomers in 1931 made by Dupont. It is prepared by emulsion polymerization of chloroprene, or 2-chlorobutadiene. CR is a multi-purposed elastomer which yields a balanced combination of properties. It performs well in contact with oils and many chemicals and has good resistance to sun, ozone and weather. It also displays outstanding toughness and good resistance to fire.

CURE SYSTEM: SULFUR-CURED

Standard FKM compounds are Bisphenol-cured. FKM compounds with peroxide- cured possess better acid solution resistance than the bisphenol-cured and can replace litharge-cured applied in acid solutions. In some lubricants, adding a few organic amide or amine, or choosing peroxide-cured system Viton® will be better than bisphenol curing systems.

OTHER COMMON VARIATIONS

- CR has been used in thousands of diverse environments, including the automotive, wire and cable industries.
- CR is most often used in air condition systems, especially old refrigerated media like R12 or R22 and lubricants with mineral oils.

GENERAL INFORMATION

ASTM D1418 DESIGNATION	CR	**STANDARD COLOR**	Black
ISO/DIN 1629 DESIGNATION	CR	**HARDNESS RANGE**	30 to 90 Shore A
ASTM D2000/ SAE J 200 CODES	BC, BE	**RELATIVE COST**	Low

SERVICE TEMPERATURES

STANDARD LOW TEMPERATURE	-40°F -40°C	**SPECIAL COMPOUND LOW TEMPERATURE**	-67°F -55°C
STANDARD LOW TEMPERATURE	212°F 100°C	**SPECIAL COMPOUND HIGH TEMPERATURE**	257°F 125°C

* RAGCO supports the autonomy of its locations to select the best products to service their markets. Subtle variations of these specification may exist. Contact your RAGCO affiliate for confirmation.

PERFORMS WELL IN

- Refrigerants
- Ammonia
- Water
- Silicone grease and oils
- High aniline point mineral oil

DOESN'T PERFORM WELL IN

- Aromatic hydrocarbons
- Ketones
- Esters
- Ethers
- Strong oxidizing acids
- Chlorinated hydrocarbons

TEST REPORT FOR COMPOUND C70

DUROMETER: 70 **COLOR: BLACK**

ASTM* D2000, M2BC710, A14, C12, F17, Z1, Z2

SECTION OF SPEC.	PROPERTIES	REQUIREMENTS	RESULTS	ASTM TEST METHOD
	ORIGINAL PHYSICAL PROPERTIES			
	Hardness, Shore A	70 ± 5	70	D2240-04
	Tensile Strength	1450 PSI (min)	2269 PSI (15.65 MPa)	D412-98a
	Elongation	250% (min)	282%	D412-98a
	Modulus at 100%		652 PSI (4.50 MPa)	D412-98a
	Specific Gravity		1.388 g/cm^3	
	HEAT AGE: 70 hours at 100°C (212°F)			
	Hardness Change	± 15 points (max)	+9 points	
A14	Tensile Strength Change	-15% (max)	-1%	D573-04
	Elongation Change	-40% (max)	-9%	
	Weight Change		-2.8%	
Z1	**COMPRESSION SET: 70 hours at 100°C (212°F)**	35% (button) (max)	33.2%	D395-03, Method B
C12	**OZONE RESISTANCE: 50 pphm, 70 hours at 40°C (104°F)**	No crack	Pass	D1171-99
	LOW-TEMPERATURE BRITTLENESS POINT: 3 minutes at-40°C (-40°F)			
F17	Sample type: T-50			D2137-94, Method A
	Coolant : Methanol			
	Brittleness temperature to nearest 1°C (1°F)	No crack	Pass	

*American Society for Testing and Materials

* RAGCO supports the autonomy of its locations to select the best products to service their markets. Subtle variations of these specification may exist. Contact your RAGCO affiliate for confirmation.