R1000 MATERIAL SUMMARY

70 Durometer, Green, HNBR Nitrile

Request a Quote

Hydrogenated Nitrile (HNBR) was specifically developed for increased temperature resistance and better compatibility with new automotive fuels. Please contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

ABOUT #R1000

R1000 is a general use HNBR. Hydrogenated Nitrile offers higher strength and minimal degradation at high temperatures. Specific physical and chemical resistances vary by compound formulation.

FEATURES

- Compatible with Freon R-134a and compressor lubricant oil.
- Extended temperature capabilities.
- Enhanced chemical compatibility with new automotive fuels.
- Good/Excellent resistance to compression set and tear/abrasion.

APPLICATION EXAMPLES

Applications involving many petroleum oils/greases, H2S, hydraulic fluids, alcohol, ambient water, silicone greases, Di-ester base lubricants, CO2 and ethylene-glycol based fluids.

ADDITIONAL INFORMATION

- Service Temperature of -30° to 325°F
- Cure System: Peroxide
- Spec: ASTM D2000 M3DH710 A26 B16 E016 E036

R1000 MATERIAL SUMMARY

70 Durometer, Green, HNBR Nitrile

Request a Quote

PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	70
Color	Green	Green
Tensile Strength, psi	1,440 min.	1800
Ultimate Elongation, %	200 min.	380
TR-10°C		-23
HEAT RESISTANCE – A26, ASTM D 573 (70 hrs. @ 150°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	10	9
Tensile Strength Change, %	-25	43
Ultimate Elongation Change, %	-30	-19
COMPRESSION SET – B16, ASTM D 325 Method B (22 hrs. @ 150°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	30 max.	22
FLUID RESISTANCE –ASTM #1 Oil – E016, ASTM D 471 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	-5 to +10	+7
Tensile Strength Change, %	-20 max.	+13
Ultimate Elongation Change, %	-30 max.	-1
Volume Change, %	+/- 5	5
FLUID RESISTENCE – ASTM #1 Oil, -E036, ASTM D 471 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	-15 max.	-10
Tensile Strength Change, %	-30 max.	-13
Ultimate Elongation Change, %	-30 max.	+6
Volume Change, %	+25 max.	+13