
Cord Compound HNBR80CD Data Sheet

Material: Hydrogenated Nitrile HNBR
80 Durometer, Black

General Information:

Also known as Highly Saturated Nitrile (HSN), it is a synthetic polymer that is obtained by saturating the double bonds in nitrile-butadiene segments with hydrogen. HNBR has superior heat, ozone, chemical resistance and mechanical characteristics over standard Nitrile.

Cure System: *Sulfur-cured*

Temperature Range: -40°C (-40°F) to 160°C (320°F)

Attributes:

Color: Black

Durometer Shore A: 80±5

Shelf-life: 15 years

Performs Well In:

- Petroleum based oils & fuels
- Aliphatic hydrocarbons
- Vegetable oils
- Silicone oils & greases
- Ethylene glycol
- Dilute acids, bases and salt solutions to moderate temperatures
- Water and steam to 150°C (300°F)

Doesn't Perform Well In:

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

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TEST REPORT FOR CORD COMPOUND HNBR80CD

MATERIAL: HYDROGENATED NITRILE (HNBR)

DUROMETER: 80

COLOR: BLACK

ASTM D2000 M3DH810 A26 B16 EO16 EO36 Z1

| SECTION OF SPEC. | PROPERTIES | REQUIREMENTS | RESULTS | ASTM TEST METHOD |
|------------------|--------------------------------------|--------------|---------|------------------|
| A26 | ORIGINAL PROPERTIES | | | |
| | Durometer Hardness | 80±5 | 82 | D2280 |
| | Tensile Strength (MPa) (Z1) | 16.0 min | 21.9 | D412 |
| | Tensile Strength (PSI) (Z1) | 2321 min | 3180 | D412 |
| | Elongation (% Change) | 175 min | 210 | D412 |
| | Modulus 100, psi | NR | 1483 | D412 |
| B16 | HEAT AGING | | | D865 |
| | 70 hours at 150°C | | | |
| | Hardness (Points Change) | +10 max | +7 | |
| | Tensile (% Change) | -25 max | +4 | |
| EO16 | IMMERSION | | | D471 |
| | ASTM #1 Oil 70 Hrs. @ 150°C | | | |
| | Hardness (Points Change) | -5 to +10 | +2 | |
| | Tensile (% Change) | -20 max | +5 | |
| | Elongation (% Change) | -30 max | -16 | |
| EO36 | IMMERSION | | | D471 |
| | IRM 903 Oil 70 Hrs. @ 150°C | | | |
| | Hardness (Points Change) | 15 max | -9 | |
| | Tensile (% Change) | -30 max | -7 | |
| | Elongation (% Change) | -30 max | -7 | |
| | COMPRESSION SET - PERCENT SET | | | D395B |
| | 22 Hrs. @ 150°C | 30 max | 16 | |

*American Society for Testing and Materials

HNBR80CD