



Overview

EP75BK28 is Canyon's standard 75 shore A durometer, Nuclear Safe, Peroxide Cured black EPDM. This material was specifically formulated for high performance & low extractables in Nuclear applications.

EP75BK28 is tested to EN 14582 & IC and EPA 3052 & ICP-OES & EA to confirm low problematic elemental content.

Features & Benefits

- Nuclear Safe EPDM
- Tested to EN 14582 & IC
- Tested to EPA 3052 & ICP-OES & EA
- High resistance to weathering
- Peroxide Cured
- Good heat resistance
- Good abrasion resistance
- Low Compression Set
- Cost Effective

Service Temperature

- -45°C to 150°C (-49°F to 300F)

Specification

- ASTM D2000 5CA715 A25 B35 EA14 F17 Z1 Z2 Z3 Z4 Z5



Test Data

Table 1. Physical Properties

Test	Requirements	Results
Color	Black	Black
Hardness, Shore A	75+/-5	78
Tensile Strength, psi (MPa)	1500 min	1980 (13.65)
Elongation	150% min	215%
Specific Gravity, g/cm ³		1.26

Table 2. A25 - Heat Aging - 70 hrs at 125°C

Test (Change)	Requirements	Results
Hardness, Shore A	+10 max	+2
Tensile Strength, %	-20 max	-7
Elongation, %	-40 max	-11
Weight, %		-0.5

Table 3. Z4 - Heat Aging - 70 hrs at 150°C

Test (Change)	Requirements	Results
Hardness, Shore A		+3
Tensile Strength, %		-7
Elongation, %		-26
Weight, %		-0.6
1800 Bend	No Crack	PASS

Table 4. Z5 - Heat Aging - 70 hrs at 180°C

Test (Change)	Requirements	Results
Hardness, Shore A		+4
Tensile Strength, %		-88
Elongation, %		-95
Weight, %		-4



Table 5. B35 – Compression Set – 22 hrs at 125°C

Test (Change)	Requirements	Results
Permanent Set, %	50 max	15.7

Table 6. EA14 – Water Resistance – 70 hrs at 100°C

Test (Change)	Requirements	Results
Hardness, Shore A		+1
Tensile Strength, %		+2
Elongation, %		+8
Volume, %	-5 to +5	+1

Table 7. F17 – Low Temp Brittleness Test – 3 mins at -40°C

Test (Change)	Requirements	Results
Brittleness	Non-Brittle	Non-Brittle

Table 8. Element Content – EN 14582 & IC

Test	Requirements	Results
Fluorine Content, ppm	200 max	0.0
Chlorine Content, ppm	200 max	0.0
Bromine Content, ppm	200 max	0.0

Table 9. Element Content – US EPA 3052 & ICP-OES

Test	Requirements	Results
Mercury Content, ppm	1 max	0.0
Arsenic Content, ppm	2 max	0.0
Lead Content, ppm	10 max	0.0
Zinc Content, ppm		20

Table 10. Element Content – US EPA 3052 & EA

Test	Requirements	Results
Sulfur Content, ppm	200 max	0.02

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