



SUPERIOR

sealing technology

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Technical Data Sheet – EP11/7/4 BLK

SUPERIOR EP11/7/4 BLK is based on an ethylene-propylene elastomer and uses a peroxide cure system. The technology used in this material is optimised to provide outstanding high temperature compression set performance, and hot water resistance. In addition, EP11/7/4 BLK has inherent resistance to Glycol/Water heat transfer fluids and is ideally suited for use in Solar Heating sealing systems.

EP11/7/4 BLK achieves a working temperature range of -50°C to 175°C (dependant on seal environment); compared to a maximum of 120°C for standard EPDM materials.

EP11/7/4 BLK holds numerous approvals for use with hot and cold potable water:

- WRAS (UK)
- UBA Elastomer Guideline (Germany)
- ACS (France)
- KIWA (Netherlands) Class II and III.
- NSF61, sections 6, 9 & Annex G (USA)
- O-Norm B5014-1 (Austria)
- DM 174 (Italy)

EP11/7/4 BLK is also approved by the DVGW (Reg No DW-5253CL0321) with EN681-1, W534, KTW and DVGW W270 Certification (Germany).

Colour: Black

ORIGINAL PHYSICAL PROPERTIES	UNITS	STANDARD	SPECIFICATION
Hardness	IRHD	ISO 48	73 ± 5
Specific Gravity		ISO 2781	1.06 ± 0.03
Tensile Strength	MPa	ISO 37	12 min
Elongation at Break	%	ISO 37	175 min
COMPRESSION SET (25% compression)		ISO 815	
70 hours at 150°C	%		15 max
70 hours at 175°C	%		20 max
24 hours at 200°C	%		30 max
AIR AGEING - 168 HOURS AT 150°C		ISO 188	
Hardness Change	IRHD		+1 typical
Tensile Strength Change	%		±5 typical
Elongation at Break Change	%		±5 typical
FLUID AGEING		ISO 1817	
PROPYLENE GLYCOL/WATER HEAT TRANSFER FLUID (proprietary grade)			
1000 HOURS AT 95°C			
Tensile Strength Change	%		± 2 typical
Elongation at Break Change	%		± 2 typical
Hardness Change	IRHD		-1 typical
Volume Change	%		+1 typical
Compression Set	%		10 typical
WATER - 70 HOURS AT 100°C			
Hardness Change	IRHD		-1 typical
Volume Change	%		+1 typical
LOW TEMPERATURE RETRACTION			
TR10	°C	ISO 2921	-45 typical

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