

DAI-EL® GBR-6005

Characteristics

DAI-EL® GBR-6005 is a medium Mooney viscosity, base resistant elastomer with excellent resistance to extended life engine coolants, lubricating oils, some oil & gas drilling fluids and other high pH environments. Compared with other base resistant elastomers DAI-EL® GBR-6005 offers superior processability, compression set and low temperature flexibility.

Properties*	Value
Fluorine content	62%
Specific gravity	1.72
Mooney viscosity (ML1+10@121°C)	60
Color	White to cream
Solubility	Soluble in lower ketones and esters

*Typical properties are not suitable for specification purposes.

Typical Applications

O-rings, seals, gaskets and other elastomeric parts used in high pH environments.

Form & Packaging

DAI-EL® GBR-6005 is packaged as slabs with polyethylene film separators sealed in a polyethylene bag. The standard shipping container is a 20 kg (44 lb) net weight carton.

Safety

- (1) Store and use all fluoroelastomers in a well-ventilated area.
- (2) Do not smoke in areas contaminated with dust from fluoroelastomers.
- (3) Avoid eye contact.
- (4) After handling, wash any skin that came in contact with the product with soap & water.

Potential hazards, including evolution of toxic vapors, exist during compounding or processing under high temperatures. Before processing Daikin fluoroelastomer, consult the SDS (Safety Data Sheet) and follow all label directions and handling precautions. Read and follow all directions from other compound ingredient suppliers. Mixing agents that contain metallic particulate such as powdered aluminum can rapidly decompose at high temperatures, and therefore should not be used with this product.

Typical Compound Properties

Test Formula	phr
DAI-EL® GBR-6005	100
MT Carbon Black (N-990)	30
TAIC (72% Activity)	4
Peroxide (50% Activity)	3

Rheological Properties	MDR 2000
Temperature: 177°C Frequency: 100 cpm	Strain: 0.5° Test time: 6'
ML (minimum torque), lb-in (dNm)	1.1 (1.2)
MH (maximum torque), lb-in (dNm)	11.4 (12.9)
t _{s2} (scorch time), minutes	0.5
t'50 (time to 50% cure), minutes	0.6
t'90 (time to 90% cure), minutes	0.9

Physical Properties	
Press Cure Post Cure	10 min at 177 °C 4 hrs @ 200 °C
Hardness, Shore A	66
Tensile strength, MPa (psi)	17 (2970)
Elongation at break, %	460
100% Modulus, MPa (psi)	2.4 (380)
Compression Set, ASTM D395 Method B	
70 hours @ 175 °C, %	17
70 hours @ 200 °C, %	25

Low Temperature Retraction, ASTM D1329	
TR10, °C	-12

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