

DAI-EL® G-7451

Characteristics

DAI-EL® G-7451 is a cure-incorporated copolymer with medium Mooney viscosity. It has excellent mold flow compared with fluoroelastomers of similar Mooney viscosity, making it well suited for compression, transfer or injection molding. DAI-EL® G-7451 produces vulcanizates with excellent heat and compression set resistance.

Properties*	Value
Fluorine content	66%
Specific gravity	1.81
Mooney viscosity (ML1+10@121°C)	40
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, molded tubing

Form & Packaging

DAI-EL® G-7451 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® G-7451	100
MT Carbon Black (N-990)	30
Magnesium oxide	3
Calcium hydroxide	6

Rheological Properties	MDR2000	ODR
Temperature: 177°C Frequency: 100 cpm	Strain: 0.5° Test time: 6'	Strain: 3° Test time: 12'
ML (minimum torque), lb-in (dNm)	1.1 (1.2)	10 (11)
MH (maximum torque), lb-in (dNm)	24.1 (27.2)	120 (140)
t _{s2} (scorch time), minutes	1.7	2.6
t'50 (time to 50% cure), minutes	2.2	4.2
t'90 (time to 90% cure), minutes	3.1	4.7

Physical Properties		
Press Cure	10 min at 177 °C	5 min at 177 °C
Post Cure	24 hrs @ 232 °C	24 hrs @ 260 °C
Hardness, Shore A	77	77
Tensile strength, MPa (psi)	13.9 (2020)	14.5 (2110)
Elongation at break, %	220	210
100% Modulus, MPa (psi)	6.2 (890)	6.2 (900)
Compression Set, ASTM D395 Method B (#214 O-ring)		
70 hours @ 200 °C, %	13	16

Low Temperature Retraction, ASTM D1329	
TR10, °C	-18

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