

DAI-EL® G-551

Characteristics

DAI-EL® G-551 is a cure-incorporated terpolymer designed for transfer and compression molding. It offers a balance of fluid resistance and low temperature flexibility.

Properties*	Value
Fluorine content	69%
Specific gravity	1.84
Mooney viscosity (ML1+10@121°C)	48
Color	White to light yellow mass
Solubility	Soluble in lower ketones and esters

*Typical properties are not suitable for specification purposes.

Typical Applications

Gaskets, oil seals, diaphragms

Form & Packaging

DAI-EL® G-551 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 fluoroelastomers, 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-551	100
MT Carbon Black (N-990)	30
Magnesium oxide	3
Calcium hydroxide	6

Rheological Properties

Temperature: 190°C Frequency: 100 cpm	Strain: 0.5° Test time: 6 min
ML (minimum torque), lb-in (dNm)	1.6 (1.8)
MH (maximum torque), lb-in (dNm)	20.6 (23.3)
t _{s2} (scorch time), minutes	0.7
t'50 (time to 50% cure), minutes	0.9
t'90 (time to 90% cure), minutes	1.3

Physical Properties

Press Cure	10 min @ 190 °C
Post Cure	24 hrs @ 232 °C
Hardness, Shore A	80
Tensile strength, MPa (psi)	15.3 (2210)
Elongation at break, %	220
100% Tensile Stress, MPa (psi)	6.6 (950)
Compression Set, ASTM D395 Method B (#214 O-ring)	
70 hours @ 175°C (347°F), %	21
70 hours @ 200°C (392°F), %	28

Low Temperature Properties

Embrittlement Temperature, °C	-21
Gehman Torsion ASTM 1053-92A	
T ₂ , °C	-7.0
T ₁₀ , °C	-12.0
Temperature Retraction	
TR ₁₀ , °C	-14.0
TR ₇₀ , °C	-8.0

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