



TECHNICAL INFORMATION

DAI-EL™
Fluoroelastomer

G-EXP-021

FEATURES

DAI-EL G-EXP-021 is a cure-incorporated copolymer with low Mooney viscosity and moderate cure speed. It is useful for injection and transfer molding of seals and o-rings. It has excellent mold flow and better compression set than copolymers of similar Mooney viscosity.

TYPICAL PROPERTIES

Fluorine content	66%
Specific gravity	1.81
Mooney viscosity (ML ₁₊₁₀ @ 121°C)	22
Color	White to cream
Solubility	Soluble in lower ketones and esters

TYPICAL APPLICATIONS

O-rings, Shaft seals, gaskets, molded tubing

FORM & PACKAGING

DAI-EL G-EXP-021 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 MSDS (Material 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-EXP-021	100
MT Carbon Black (N-990)	30
Magnesium oxide	3
Calcium hydroxide	6

Rheological Properties	MDR 2000
Temperature: 177 °C	Strain: 0.5°
Frequency: 100 cpm	Test time: 6 min
ML (minimum torque), lb-in (dNm)	0.76 (0.86)
MH (maximum torque), lb-in (dNm)	22.8 (26.0)
t _{s2} (scorch time), minutes	2.10
t'50 (time to 50% cure), minutes	2.50
t'90 (time to 90% cure), minutes	3.83

Curing conditions	
Press Cure	10 min @ 177 °C
Post Cure	24 hrs @ 232 °C

Physical Properties	
Hardness, Shore A	80
Tensile strength, MPa (psi)	13.8 (2000)
Elongation at break, %	206
100% Modulus, MPa (psi)	6.5 (936)

Compression Set, ASTM D395 Method B (#214 O-ring)	
70 hours @ 200 °C, %	TBD

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

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