

DAI-EL® G-EXP-002

Characteristics

DAI-EL® G-EXP-002 is a cure incorporated copolymer with medium-low Mooney viscosity. It is designed for injection molding of o-rings, seals and other parts where fast curing and low compression set are required. DAI-EL® G-EXP-002 may be used in compliance with 21 CFR 177.2600, Rubber articles intended for repeated use. Finished articles are required to comply with the end tests specified in 21 CFR 177.2600 (e) or (f), as applicable.

Properties*	Value
Fluorine content	66%
Specific gravity	1.81
Mooney viscosity (ML1+10@121°C)	33
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-EXP-002 is packaged as slabs with polyethylene film separators 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-EXP-002	100
MT Carbon Black (N-990)	30
Magnesium oxide	3
Calcium hydroxide	6

Rheological Properties	MDR2000
Temperature: 177°C Frequency: 100 cpm	Strain: 0.5° Test time: 6 min
ML (minimum torque), lb-in (dNm)	1.0 (1.1)
MH (maximum torque), lb-in (dNm)	23.4 (26.4)
t _{s2} (scorch time), minutes	1.3
t'50 (time to 50% cure), minutes	1.5
t'90 (time to 90% cure), minutes	2.5

Physical Properties	
Press Cure Post Cure	10 min at 177 °C 24 hrs @ 232 °C
Hardness, Shore A	80
Tensile strength, MPa (psi)	16.5 (2400)
Elongation at break, %	200
100% Modulus, MPa (psi)	7.2 (1040)
Compression Set, ASTM D395 Method B (#214 O-ring)	
70 hours @ 200 °C, %	15.4

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

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DAIKIN AMERICA, INC.
20 Olympic Drive
Orangeburg, NY 10962
Customer Service: 800-365-9570
Fax: 845-365-9598
<http://www.daikin-america.com>

DAIKIN INDUSTRIES, LTD.
Umeda Center Building
2-4-12 Nakasaki-Nishi, Kita-Ku
Osaka 530-8323 Japan
Phone: +81-6-67374-9355
Fax: +81-6-6374-4281
<http://www.daikin.com>

DAIKIN CHEMICAL EUROPE GmbH
Immermannstr, 65D
40210 Dusseldorf, Germany
Phone: +49-211-1792250
Fax: +49-211-1640732