

PERFLUOROELASTOMER (FFKM)



AKRON PF8290 PRECOMPOUND

Product Description

AKRON PF8290 is a chemically resistant perfluoroelastomer (FFKM) designed for applications requiring exceptional sealing capabilities against a wide range of corrosive media. It also offers excellent compression set resistance. Uses peroxide curing system for enhanced performance.

Key Features

- Outstanding Heat Resistance: Suitable for continuous use within a temperature range of **-10°C to 290°C (14°F to 554°F)**.
- Excellent Chemical Resistance: Provides superior resistance to oils and corrosive solvents.
- Low Compression Set: Ensures long-term sealing performance under challenging conditions.

PF8290 Product Performance			
Pre-cured Properties			
Property	Unit	PF8290	Test Method
Mooney Viscosity (ML(1+10'), 121°C)	MU	46-75	ISO 289-1:2014 ASTM D1646-04
Appearance	-	Translucent	Visual Inspection
Density	g/cm ³	2.04	ISO 2781:2008 ASTM D297-93
Fluorine Content	%	72.7	Oxygen Flask Combustion

Cured Properties

Property	Unit	PF8290	Test Method
Cure Curve (160°C × 30 min)			
MH (Maximum Torque)	dN·m	16.5	
ML (Minimum Torque)	dN·m	1.7	ISO 6502:1991
Ts2 (Scorch Time)	min:s	0:53	ASTM D5289-95
T90 (Cure Time)	min:s	6:48	

Mechanical Properties

<i>Property</i>	<i>Unit</i>	<i>PF8290</i>	<i>Test Method</i>
Hardness (Shore A)	-	66	ISO 6502:1991 ASTM D5289-95
Tensile Strength	MPa	16.3	ISO 37:2005
Elongation at Break	%	173	ASTM D412-06a
Compression Set (290°C × 70 hr, 25%)	%	46	ISO 815-1:2008 ASTM D395-03

Notes:

1. The above test data are typical values provided for reference only and are not intended as product specifications.
2. **Cured Rubber Test Formula:**
 - **PF8290:** 100 phr
 - **Luperox 101XL-45:** 1.5 phr
 - **N-990 Carbon Black:** 15phr

Recommended Curing Conditions

- **Press Cure:** 170°C for 15 minutes
- **Post-Cure:** 290°C for 24 hours

Applications

PF8290 can be widely used across various industries, including:

- **Chemical Processing:** Ideal for components exposed to aggressive chemicals.
- **Semiconductor Manufacturing:** Suitable for critical sealing applications.
- **Petrochemical and Oil & Gas Industries:** Designed for harsh environmental conditions.

PF8290 is specifically engineered for manufacturing components resistant to various corrosive media, such as:

- Hot organic and inorganic acids
- Caustic alkalis
- Ketones, aldehydes, esters, ethers, and alcohols
- Fuels, solvents, acidic gases, hydrocarbons, steam, and hot water

Commonly manufactured items include:

- **Sealing Elements:** O-rings, gaskets, valve bodies, diaphragms, and more

Packaging

- Packed in plastic film, 1 kg per package, or customized according to customer requirements.

Transportation

- Transported as non-hazardous solid material.
- Ensure packaging integrity during transportation.

Storage

- Store at room temperature in a dry, ventilated, and shaded environment.
- Valid for **one year** under proper storage conditions.
- Keep in a neutral environment, avoiding contact with acidic or alkaline substances.

Safety Guidelines

- Follow standard precautions to avoid skin and eye contact or inhalation of fumes.
- Refer to the **Material Safety Data Sheet (MSDS)** for detailed safety instructions or contact our company for more information.

OTHER INFORMATION

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Additional Information	: This datasheet provides the best available information on the specifications, usage, and handling of the product. It is provided in good faith, based on current knowledge, but no warranty, expressed or implied, is offered. We disclaim any responsibility for losses or damages that may arise from using the information provided and do not assume any liability for violations or non-compliance resulting from its application.

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