# EnDura® E90SR

### Ethylene Propylene Diene Terpolymer

Precision Polymer Engineering Ltd.

#### Message:

A high temperature, steam resistant, EPDM elastomer material designed for geothermal applications including pumps, valves, turbines, drilling tools and equipment. In addition to geothermal applications EnDura® E90SR may be used in steam applications for enhanced oil recovery and general purpose high temperature hot water and steam applications.

EnDura ® E90SR offers a maximum temperature rating in anaerobic steam up to 288°C (550°F), and may be used in short durations up to 315°C (600°F) in steam. This performance greatly exceeds standard EPDM materials.

EPDM provides broad chemical resistance to polar fluids, however E90SR is not recommended for hydrocarbon based oils and fuels. The material has been tested for explosive decompression resistance in carbon dioxide to NACE TM0297-97.

Key Attributes

Specifically developed for high temperature steam and geothermal applications

Longer seal life and high temperature resistance compared to standard EPDM materials

Resistant to polar fluids

Tested to NACE TM0297-97 ED standard

**Typical Applications** 

High temperature water/steam and geothermal applications.

Geothermal explorations, drilling and completion equipment.

Steam injection for enhanced oil recovery

Seals for pumps, valves, and turbines

O-rings, T-seals, and custom molded seals

General Information				
Features	Steam resistance			
	Low or no water absorption			
Uses	Pump parts			
	Valve/valve components			
	Seals			
Appearance	Black			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.12	g/cm <sup>3</sup>	ASTM D792	
Hardness	Nominal Value	Unit	Test Method	
IRHD Hardness	87		ASTM D1415, ISO 48	
Elastomers	Nominal Value	Unit	Test Method	
Tensile Stress (100% Strain)	6.40	MPa		
Tensile Strength (Yield)	20.0	MPa	ASTM D412, ISO 37	
Tensile Elongation (Break)	250	%	ASTM D412, ISO 37	
Tear Strength				
	40.0	kN/m	ASTM D624	
	40	kN/m	ISO 34-1	
Compression Set			ASTM D395, ISO 815	
135°C, 24 hr	25	%	ASTM D395, ISO 815	
135°C, 70 hr	37	%	ASTM D395, ISO 815	

Thermal	Nominal Value	Unit	
Maximum Operating Temperature	288	°C	
Low Temperature Resistance - TR10	-50	°C	ASTM D1329
Additional Information	Nominal Value	Unit	Test Method

Minimum Operating Temperature: -50°C (-58°F)

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

## Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

