

Dryflex® WS 30M500

Thermoplastic Elastomer

ELASTO

Message:

With our Dryflex® WS range we have turned the usual water-resistant properties of thermoplastic elastomers (TPE) on their head to create materials that swell up to ten times their volume when immersed in water. These materials have been developed to expand upon contact with aqueous solutions (pH7 to 12) to form a positive seal and prevent the ingress or exit of water.

Material Science

A range of formulations have been developed to offer swell rates from 300 to 1000% when immersed in water. When there is no longer water present the compound shrinks back to its original size, a process of expansion and contraction that can be repeated an unlimited number of times.

The compounds have solid structural integrity; unlike many of the equivalent clay based products which can erode and shatter over time. Compounded in any colour, the water swellable TPE is 100% recyclable and can be processed using conventional fabricating methods, including extrusion and injection moulding. Antimicrobial versions are available.

Applications

Waterstops, building & construction, water treatment plants, tunnels, drains, sewers, tanks, automotive sealant parts, glazing, headlights and cable protection are just a few of the potential applications for Dryflex® WS materials.

We have developed softer grades which offer excellent drapability. They are an ideal choice for water stop applications where the profiles may be coiled or need to be fitted around complex structures.

General Information			
Features	Good Chemical Resistance		
	Good Weather Resistance		
	Hydrophilic		
	Recyclable Material		
Uses	Automotive Applications		
	Building Materials		
	Construction Applications		
	Glazing		
	Sealants		
	Tanks		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.25	g/cm ³	ISO 2781
Molding Shrinkage	1.5	%	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore A)	30		ISO 868
Thermal	Nominal Value	Unit	
Service Temperature ¹	-50 to 75	°C	
Water Swell - 7 days (23°C)	500	%	
Injection	Nominal Value	Unit	
Rear Temperature	100 to 110	°C	

Middle Temperature	110 to 120	°C
Front Temperature	120 to 130	°C
Nozzle Temperature	130 to 140	°C
Mold Temperature	15.0 to 40.0	°C

NOTE

1.
- Unstressed Material

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



WECHAT