STERalloy™ FDG 2871-4

Thermoplastic

Hapco Inc.

Message:

STERalloy FDG is the first Liquid Molding Polymer Alloy Series that has been specifically designed for food and drug applications. All of products in the STERalloy FDG Series exhibit unique physical and chemical properties and have been used in numerous applications where biocompatibility is required. Key Advantages:

Approvable Materials

Wide range of hardnesses

ROHS compliant

Very high physical properties

Low moisture sensitivity

Easy to use

The food, drug, pharmaceutical, wine, beer, juice, dairy, hospital equipment, and prosthetic industries are just some examples of applications that utilize special products such as STERalloy FDG.

STERalloy FDG Elastomeric Series:

various hardness elastomers, shore 20A - 72D

clear in color

available in 2 speeds - fast and slow

STERalloy FDG Rigid Series:

rigid, tough polymer alloy plastics

high heat distortion

high physical properties

General Information					
Features	Food Contact Acceptable Good Processability				
Uses	Filtration Media				
	Food Containers				
	Medical/Healthcare Applications				
	Non-specific Food Applications				
	Pharmaceuticals				
	Prosthetics				
RoHS Compliance	RoHS Compliant				
Appearance	Clear/Transparent				
Forms	Liquid				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.03	g/cm³	ASTM D4669		
Molding Shrinkage - Flow	0.20 to 0.40	%	ASTM D2566		
Weight - per cubic inch	17	g			
Gel Time ¹ (25°C)	4.0	min	ASTM D2971		
Hardness	Nominal Value	Unit	Test Method		
Durometer Hardness (Shore D)	72		ASTM D2240		
Mechanical	Nominal Value	Unit	Test Method		

Tensile Modulus 41.4 MPa ASTM D638 Tensile Strength 25.5 MPa ASTM D638 Tensile Elongation (Break) 65 % ASTM D638 Flexural Modulus 95.8 MPa ASTM D790 Flexural Strength 16.2 MPa ASTM D790 Elastomers Nominal Value Unit Test Method Impact Nominal Value Unit Test Method Notched Izod Impact 80 J/m ASTM D256 Unnotched Izod Impact 340 J/m ASTM D256 Thermal Nominal Value Unit Test Method 0.45 MPa, Unannealed 50.0 "C *** 1.8 MPa, Unannealed 44.0 "C *** Thermoset Components Win Ratio by Weight: 100, Mix Ratio by Volume: 100 *** Part A Mix Ratio by Weight: 32, Mix Ratio by Volume: 32 *** Thermoset Mix Viscosity (25°C) 4300 c ASTM D4878 Demold Time (21°C) 30 to 60 min Internal Method <t< th=""><th></th><th></th><th></th><th></th></t<>						
Tensile Elongation (Break) 65 % ASTM D638 Flexural Modulus 95.8 MPa ASTM D790 Flexural Strength 16.2 MPa ASTM D790 Elastomers Nominal Value Unit Test Method Tear Strength 2 109 kN/m ASTM D624 Impact Nominal Value Unit Test Method Notched Izod Impact 80 J/m ASTM D256 Unnotched Izod Impact 340 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 50.0 *C ** 1.8 MPa, Unannealed 50.0 *C ** 1.8 MPa, Unannealed 44.0 *C ** Thermoset Components ** ** ** Part A Mix Ratio by Weight: 100, Mix Ratio by Volume: 32 ** Thermoset Mix Viscosity (25°C) 4300 cP ASTM D4878 Demold Time (21°C) 30 to 60 min Internal Method NOTE <td>Tensile Modulus</td> <td>41.4</td> <td>MPa</td> <td>ASTM D638</td>	Tensile Modulus	41.4	MPa	ASTM D638		
Flexural Modulus 95.8 MPa	Tensile Strength	25.5	MPa	ASTM D638		
Flexural Strength 16.2 MPa ASTM D790 Elastomers Nominal Value Unit Test Method Tear Strength 2 109 kN/m ASTM D624 Impact Nominal Value Unit Test Method Notched Izod Impact 80 J/m ASTM D256 Unnotched Izod Impact 340 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 50.0 *C *** 1.8 MPa, Unannealed 44.0 ***C *** Thermoset Nominal Value Unit Test Method Thermoset Components *** *** Part A Mix Ratio by Weight: 100, Mix Ratio by Volume: 100 *** Part B Mix Ratio by Weight: 32, Mix Ratio by Volume: 32 *** Thermoset Mix Viscosity (25°C) 4300 c ASTM D4878 Demold Time (21°C) 30 to 60 min Internal Method NOTE *** ***	Tensile Elongation (Break)	65	%	ASTM D638		
Elastomers Nominal Value Unit Test Method Tear Strength 2 109 kN/m ASTM D624 Impact Nominal Value Unit Test Method Notched Izod Impact 80 J/m ASTM D256 Unnotched Izod Impact 340 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 50.0 *C *STM D648 0.45 MPa, Unannealed 44.0 *C **Test Method 1.8 MPa, Unannealed 44.0 *C **Test Method Thermoset Components **V **Test Method **Test Method Part A Mix Ratio by Weight: 100, Mix Ratio by Volume: 100 **Test Method Part B Mix Ratio by Weight: 32, Mix Ratio by Volume: 32 ***Test Method Thermoset Mix Viscosity (25°C) 4300 cP ASTM D4878 Demold Time (21°C) 30 to 60 min Internal Method NOTE **Test Method **Test Method **Test Method	Flexural Modulus	95.8	MPa	ASTM D790		
Tear Strength 2 109 kN/m ASTM D624 Impact Nominal Value Unit Test Method Notched Izod Impact 80 J/m ASTM D256 Unnotched Izod Impact 340 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 50.0 °C 1.8 MPa, Unannealed 50.0 °C Thermoset Nominal Value Unit Test Method Thermoset Components Part A Mix Ratio by Weight: 100, Mix Ratio by Volume: 100 Part B Mix Ratio by Weight: 32, Mix Ratio by Volume: 32 Thermoset Mix Viscosity (25°C) 4300 cP ASTM D4878 Demold Time (21°C) 30 to 60 min Internal Method NOTE 1. 109	Flexural Strength	16.2	MPa	ASTM D790		
Impact Nominal Value Unit Test Method Notched Izod Impact 80 J/m ASTM D256 Unnotched Izod Impact 340 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 50.0 °C 1.8 MPa, Unannealed 44.0 °C Thermoset Nominal Value Unit Test Method Thermoset Components Part A Mix Ratio by Weight: 100, Mix Ratio by Volume: 100 Part B Mix Ratio by Weight: 32, Mix Ratio by Volume: 32 Thermoset Mix Viscosity (25°C) 4300 cP ASTM D4878 Demold Time (21°C) 30 to 60 min Internal Method NOTE 1.00 g 100 g Internal Method	Elastomers	Nominal Value	Unit	Test Method		
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Unnotched Izod Impact 340 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load C.45 MPa, Unannealed 50.0 °C 1.8 MPa, Unannealed 44.0 °C Thermoset Nominal Value Unit Test Method Thermoset Components Part A Mix Ratio by Weight: 100, Mix Ratio by Volume: 100 Part B Mix Ratio by Weight: 32, Mix Ratio by Volume: 32 Thermoset Mix Viscosity (25°C) 4300 cP ASTM D4878 Demold Time (21°C) 30 to 60 min Internal Method NOTE 1. 100 g	Impact	Nominal Value	Unit	Test Method		
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Deflection Temperature Under Load 0.45 MPa, Unannealed 50.0 °C 1.8 MPa, Unannealed 44.0 °C Thermoset Nominal Value Unit Test Method Thermoset Components Part A Mix Ratio by Weight: 100, Mix Ratio by Volume: 100 Part B Mix Ratio by Weight: 32, Mix Ratio by Volume: 32 Thermoset Mix Viscosity (25°C) 4300 cP ASTM D4878 Demold Time (21°C) 30 to 60 min Internal Method NOTE 1. 100 g	Unnotched Izod Impact	340	J/m	ASTM D256		
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1. 100 g	Demold Time (21°C)	30 to 60	min	Internal Method		
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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

