





Status: 11/14/2018



ISO 9001:2015 & ISO 13485:2016 Certified 74-Years in Business in 2019

Technical data sheet

SUSTARIN® C (Acetal Copolymer)

Product characteristics

- · Good chemical resistance
- · Low moisture absorption
- Ideal combination of tensile strength, stiffness & impact strength Textile & food processing industries

Typical field of application

- · Mechanical & electrical engineering
- Automotive

Water Absorption 24 hours D570 % 0.2 Water Absorption Saturation D570 % 0.9 Dissipation Factor D150 1 MHz 0.004 Mechanical Properties tested method unit value Hardness D785 Shore D D85 Rockwell Hardness D785 M M88 Rockwell Hardness D785 R R120 Tensile Strength D638 psi 9,500 Tensile Modulus D638 psi 400,000 Elongation at Break D638 psi 400,000 Flexural Strength D790 psi 12,000 Flexural Modulus D790 psi 400,000 Compressive Strength D695 psi 400,000 Compressive Strength D695 psi 8,000 Shear Strength D732 psi 8,000 Scort Strength D732 psi 8,000 Izod Impact, Notched D256 ft-lb/in <	Physical Properties	tested method	unit	value
Water Absorption Saturation D570 % 0.9 Dissipation Factor D150 1 MHz 0.004 Mechanical Properties tested method unit value Hardness D785 Shore D D85 Rockwell Hardness D785 M M88 Rockwell Hardness D785 R R 120 Tensile Modulus D638 psi 9,500 Tensile Modulus D638 psi 400,000 Elongation at Break D638 % 40 Flexural Modulus D790 psi 12,000 Flexural Modulus D790 psi 400,000 Compressive Strength D695 psi 400,000 Compressive Strength D695 psi 8,000 Shear Strength D695 psi 8,000 Scott Floridion, Dynamic - - 0.21 Thermal Properties tested method unit value CTE, linear D696 infin/°F 5,5	Specific Gravity	D792	g/cm ³	1.41
Dissipation Factor Display Dissipation Factor Display Lested method	Water Absorption 24 hours	D570	%	0.2
Mechanical Properties tested method unit value Hardness D785 Shore D D85 Rockwell Hardness D785 M M88 Rockwell Hardness D785 R R120 Tensile Strength D638 psi 9,500 Tensile Modulus D638 psi 400,000 Elongation at Break D638 psi 400,000 Flexural Strength D790 psi 12,000 Flexural Modulus D790 psi 400,000 Compressive Strength D695 psi 15,000 Shear Strength D732 psi 8,000 Izod Impact, Notched D256 ft-lb/in 1,2 Coefficient of Friction, Dynamic - - 0,21 Thermal Properties tested method unit value CTE, linear D696 in/in/i°F 5,5x10-5 Melting Point D3418 °F 330 Continuous Use - °F 180	Water Absorption Saturation	D570	%	0.9
Hardness D785 Shore D D85	Dissipation Factor	D150	1 MHz	0.004
Rockwell Hardness D785 M M88 Rockwell Hardness D785 R R120 Tensile Strength D638 psi 9,500 Tensile Modulus D638 psi 400,000 Elongation at Break D638 % 40 Flexural Strength D790 psi 12,000 Flexural Modulus D790 psi 400,000 Compressive Strength D695 psi 8,000 Shear Strength D732 psi 8,000 Izod Impact, Notched D256 ft-lb/in 1.2 Coefficient of Friction, Dynamic - - 0.21 Thermal Properties tested method unit value CTE, linear D696 in/lin/l°F 5.5x10-5 Melting Point D3418 °F 330 Continuous Use - °F 180 Thermal Conductivity - in/ln/r/t2/F° 1.6 Deflection Temperature at 1.8Mpa (66psi) D648 <	Mechanical Properties	tested method	unit	value
Rockwell Hardness D785 R R120 Tensile Strength D638 psi 9,500 Tensile Modulus D638 psi 400,000 Elongation at Break D638 % 40 Flexural Strength D790 psi 12,000 Flexural Modulus D790 psi 400,000 Compressive Strength D695 psi 8,000 Shear Strength D732 psi 8,000 Izod Impact, Notched D256 ft-lb/in 1.2 Coefficient of Friction, Dynamic - 0.21 Thermal Properties tested method unit value CTE, linear D696 in/in/°F 5.5x10-5 Melting Point D3418 °F 330 Continuous Use - °F 180 Thermal Conductivity - in/hr/ft2/F° 1.6 Deflection Temperature at 1.8Mpa (66psi) D648 °F 320 Deflection Temperature at 1.8Mpa (264psi) D648	Hardness	D785	Shore D	D85
Tensile Strength	Rockwell Hardness	D785	M	M88
Tensile Modulus	Rockwell Hardness	D785	R	R120
Elongation at Break D638 %	Tensile Strength	D638	psi	9,500
Flexural Strength D790 psi 12,000 Flexural Modulus D790 psi 400,000 Compressive Strength D695 psi 15,000 Shear Strength D732 psi 8,000 Izod Impact, Notched D256 ft-lb/in 1.2 Coefficient of Friction, Dynamic - 0.21 Thermal Properties tested method unit value CTE, linear D696 in/in/°F 5.5x10·5 Melting Point D3418 °F 330 Continuous Use - °F 180 Thermal Conductivity - in/hr/ft2/F° 1.6 Deflection Temperature at 1.8Mpa (66psi) D648 °F 320 Deflection Temperature at 1.8Mpa (264psi) D648 °F 225 Flammability, UL94 - ½ inch HB Electrical Properties tested method unit value Dielectric constant D150 - 3.8 Surface resistivity D257	Tensile Modulus	D638	psi	400,000
Description	Elongation at Break	D638	%	40
Compressive Strength D695 psi 15,000 Shear Strength D732 psi 8,000 Izod Impact, Notched D256 ft-lb/in 1.2 Coefficient of Friction, Dynamic - 0.21 Thermal Properties tested method unit value CTE, linear D696 in/in/°F 5.5x10-5 Melting Point D3418 °F 330 Continuous Use - °F 180 Thermal Conductivity - in/hr/ft2/F° 1.6 Deflection Temperature at 1.8Mpa (66psi) D648 °F 320 Deflection Temperature at 1.8Mpa (264psi) D648 °F 225 Flammability, UL94 - ½ inch HB Electrical Properties tested method unit value Dielectric constant D150 - 3.8 Surface resistivity D257 Ohm/cm 10¹° Dielectric strength D149 V/mil 450 Compliance Properties teste	Flexural Strength	D790	psi	12,000
Shear Strength D732 psi 8,000 Izod Impact, Notched D256 ft-Ib/in 1.2 Coefficient of Friction, Dynamic - 0.21 Thermal Properties tested method unit value CTE, linear D696 in/in/°F 5.5x10-5 Melting Point D3418 °F 330 Continuous Use - °F 180 Thermal Conductivity - in/hr/ft2/F° 1.6 Deflection Temperature at 1.8Mpa (66psi) D648 °F 320 Deflection Temperature at 1.8Mpa (264psi) D648 °F 225 Flammability, UL94 - ½ inch HB Electrical Properties tested method unit value Dielectric constant D150 - 3.8 Surface resistivity D257 Ohm/cm 1016 Dielectric strength D149 V/mil 450 Compliance Properties tested method unit value FDA - Yes*	Flexural Modulus	D790	psi	400,000
	Compressive Strength	D695	psi	15,000
Coefficient of Friction, Dynamic - 0.21 Thermal Properties tested method unit value CTE, linear D696 in/in/°F 5.5x10·5 Melting Point D3418 °F 330 Continuous Use - °F 180 Thermal Conductivity - in/hr/ft2/F° 1.6 Deflection Temperature at 1.8Mpa (66psi) D648 °F 320 Deflection Temperature at 1.8Mpa (264psi) D648 °F 225 Flammability, UL94 - ½ inch HB Electrical Properties tested method unit value Dielectric constant D150 - 3.8 Surface resistivity D257 Ohm/cm 10¹6 Dielectric strength D149 V/mil 450 Compliance Properties tested method unit value FDA - - Yes*	Shear Strength	D732	psi	8,000
Thermal Properties tested method unit value CTE, linear D696 in/in/°F 5.5x10-5 Melting Point D3418 °F 330 Continuous Use - °F 180 Thermal Conductivity - in/hr/ft2/F° 1.6 Deflection Temperature at 1.8Mpa (66psi) D648 °F 320 Deflection Temperature at 1.8Mpa (264psi) D648 °F 225 Flammability, UL94 - ½ inch HB Electrical Properties tested method unit value Dielectric constant D150 - 3.8 Surface resistivity D257 Ohm/cm 10¹6 Dielectric strength D149 V/mil 450 Compliance Properties tested method unit value FDA - - Yes*	Izod Impact, Notched	D256	ft-lb/in	1.2
CTE, linear D696 in/in/°F 5.5x10-5 Melting Point D3418 °F 330 Continuous Use - °F 180 Thermal Conductivity - in/hr/ft2/F° 1.6 Deflection Temperature at 1.8Mpa (66psi) D648 °F 320 Deflection Temperature at 1.8Mpa (264psi) D648 °F 225 Flammability, UL94 - ½ inch HB Electrical Properties tested method unit value Dielectric constant D150 - 3.8 Surface resistivity D257 Ohm/cm 10¹6 Dielectric strength D149 V/mil 450 Compliance Properties tested method unit value FDA - - Yes NSF - - Yes*	Coefficient of Friction, Dynamic			0.21
Melting Point D3418 °F 330 Continuous Use - °F 180 Thermal Conductivity - in/hr/ft2/F° 1.6 Deflection Temperature at 1.8Mpa (66psi) D648 °F 320 Deflection Temperature at 1.8Mpa (264psi) D648 °F 225 Flammability, UL94 - ½ inch HB Electrical Properties tested method unit value Dielectric constant D150 - 3.8 Surface resistivity D257 Ohm/cm 10¹6 Dielectric strength D149 V/mil 450 Compliance Properties tested method unit value FDA - - Yes NSF - - Yes*	Thermal Properties	tested method	unit	value
Continuous Use	CTE, linear	D696	in/in/°F	5.5x10 ⁻⁵
Thermal Conductivity - in/hr/ft2/F° 1.6 Deflection Temperature at 1.8Mpa (66psi) D648 °F 320 Deflection Temperature at 1.8Mpa (264psi) D648 °F 225 Flammability, UL94 - ½ inch HB Electrical Properties tested method unit value Dielectric constant D150 - 3.8 Surface resistivity D257 Ohm/cm 10¹6 Dielectric strength D149 V/mil 450 Compliance Properties tested method unit value FDA - - Yes NSF - - Yes*	Melting Point	D3418	°F	330
Deflection Temperature at 1.8Mpa (66psi) D648 °F 320 Deflection Temperature at 1.8Mpa (264psi) D648 °F 225 Flammability, UL94 - ½ inch HB Electrical Properties tested method unit value Dielectric constant D150 - 3.8 Surface resistivity D257 Ohm/cm 10¹6 Dielectric strength D149 V/mil 450 Compliance Properties tested method unit value FDA - - Yes NSF - - Yes*	Continuous Use	-	°F	180
Deflection Temperature at 1.8Mpa (264psi) Flammability, UL94 Lested method Dielectric constant Dielectric constant Dielectric strength Dielectric strength Dielectric strength Compliance Properties tested method Dielectric strength Dielectric strength	Thermal Conductivity	-	in/hr/ft2/F°	1.6
Flammability, UL94 - ½ inch HB Electrical Properties tested method unit value Dielectric constant D150 - 3.8 Surface resistivity D257 Ohm/cm 10¹6 Dielectric strength D149 V/mil 450 Compliance Properties tested method unit value FDA - Yes NSF Yes*	Deflection Temperature at 1.8Mpa (66psi)	D648	°F	320
Electrical Properties tested method unit value Dielectric constant D150 - 3.8 Surface resistivity D257 Ohm/cm 10¹6 Dielectric strength D149 V/mil 450 Compliance Properties tested method unit value FDA - - Yes NSF - - Yes*	Deflection Temperature at 1.8Mpa (264psi)	D648	°F	225
Dielectric constant D150 - 3.8 Surface resistivity D257 Ohm/cm 10¹6 Dielectric strength D149 V/mil 450 Compliance Properties tested method unit value FDA - - Yes NSF - - Yes*	Flammability, UL94	-	½ inch	HB
Surface resistivity D257 Ohm/cm 10¹6 Dielectric strength D149 V/mil 450 Compliance Properties tested method unit value FDA - - Yes NSF - - Yes*	Electrical Properties	tested method	unit	value
Dielectric strength D149 V/mil 450 Compliance Properties tested method unit value FDA - - Yes NSF - - Yes*	Dielectric constant	D150	-	3.8
Compliance Properties tested method unit value FDA - - Yes NSF - - Yes*	Surface resistivity	D257	Ohm/cm	10 ¹⁶
FDA Yes NSF Yes*	Dielectric strength	D149	V/mil	450
NSF - Yes*	Compliance Properties	tested method	unit	value
	FDA	_	<u>-</u>	Yes
USDA - Yes	NSF	-	-	Yes*
	USDA	-		Yes

*NOTE: Sustarin® C Natural is NSF listed, standard 51, black and colors are not NSF listed.

The data stated above are average values ascertained by statistical tests on a regular basis. The data above are provided purely for information and shall not be regarded as binding unless expressly agreed in a contract of sale. The data above was correct when published. Please refer to the Röchling Plastics website for current data and product specifications.

