

ORFITRANS™ STIFF

Activation temperature 160 (320) °C (°F) Activation time - sheet thickness 8 mm 25 min Activation time - sheet thickness 10 mm 33 min Activation time - sheet thickness 12 mm 36 min Activation time - sheet thickness 12 mm 36 min Activation time - sheet thickness 15 mm 49 min Maximum shrinkage during activation 3.5 % Maximum thermal shrinkage during cooling 0.8 % Mechanical properties at 21°C Flexural modulus 1150 MPa Aging: reduction of flexural modulus after UV-lighting for 210 h 0.7 % Elastic modulus 1300 MPa Tensile strength 26 MPa Strain at break 250 % Shore D hardness 68 Impact resistance no break General properties Density 1.01 g.cm³ Degradation temperature 300 (572) °C (°F) Color transparent Oddr no smell Biocompatible	Thermoforming conditions		
Activation time - sheet thickness 8 mm Activation time - sheet thickness 10 mm Activation time - sheet thickness 12 mm Activation time - sheet thickness 12 mm Activation time - sheet thickness 12 mm Activation time - sheet thickness 15 mm Maximum shrinkage during activation Maximum shrinkage during activation Maximum thermal shrinkage during cooling Mechanical properties at 21°C Flexural modulus Aging: reduction of flexural modulus after UV-lighting for 210 h Elastic modulus 1150 MPa Aging: reduction of flexural modulus after UV-lighting for 210 h 26 MPa Tensile strength 26 MPa Strain at break 250 % Shore D hardness 68 Impact resistance no break General properties Density Density 1.01 g.cm ⁻³ Degradation temperature 300 (572) °C (°F) Color Odor no smell	Activation temperature	160 (320)	°C (°F)
Activation time - sheet thickness 12 mm Activation time - sheet thickness 15 mm 49 min Maximum shrinkage during activation 3.5 % Maximum thermal shrinkage during cooling 8.8 % Mechanical properties at 21°C Flexural modulus Aging: reduction of flexural modulus after UV-lighting for 210 h 2.7 % Elastic modulus 1300 MPa Tensile strength 2.6 MPa Strain at break 2.50 % Shore D hardness Impact resistance Density Density Density Degradation temperature Color Oddr 3.5 % Maximum thermal shrinkage during cooling 3.5 % MPa 49 min 49 MPa 40 MPa 4	·		
Activation time - sheet thickness 15 mm Maximum shrinkage during activation Maximum thermal shrinkage during cooling Mechanical properties at 21°C Flexural modulus Aging: reduction of flexural modulus after UV-lighting for 210 h Elastic modulus Tensile strength Coencral properties Degradation temperature Degradation temperature Odor Aging: 149 min 49 min 49 min 49 min 49 Mea Aging: 250 % MPa 1150 MPa 1150 MPa 126 MPa 5train at break 250 % Shore D hardness 68 Impact resistance no break Ceneral properties Degradation temperature 300 (572) C (°F) Color transparent Odor	Activation time - sheet thickness 10 mm	33	min
Maximum shrinkage during activation 3.5 % Maximum thermal shrinkage during cooling 0.8 % Mechanical properties at 21°C Flexural modulus 1150 MPa Aging: reduction of flexural modulus after UV-lighting for 210 h 0.7 % Elastic modulus 1300 MPa Tensile strength 26 MPa Strain at break 250 % Shore D hardness 68 Impact resistance no break General properties Density 1.01 g.cm ⁻³ Degradation temperature 300 (572) °C (°F) Color transparent Odor	Activation time - sheet thickness 12 mm	36	min
Maximum thermal shrinkage during cooling 0.8 % Mechanical properties at 21°C Flexural modulus 1150 MPa Aging: reduction of flexural modulus after UV-lighting for 210 h 0.7 % Elastic modulus 1300 MPa Tensile strength 26 MPa Strain at break 250 % Shore D hardness 68 Impact resistance no break General properties Density 1.01 g.cm ⁻³ Degradation temperature 300 (572) °C (°F) Color transparent Odor	Activation time - sheet thickness 15 mm	49	min
Maximum thermal shrinkage during cooling 0.8 % Mechanical properties at 21°C Flexural modulus Flexural modulus 1150 MPa Aging: reduction of flexural modulus after UV-lighting for 210 h 0.7 % Elastic modulus 1300 MPa Tensile strength 26 MPa Strain at break 250 % Shore D hardness 68 mo break Impact resistance no break General properties Density 1.01 g.cm³ Degradation temperature 300 (572) °C (°F) Color transparent Odor no smell	Maximum shrinkage during activation	3.5	%
Flexural modulus Aging: reduction of flexural modulus after UV-lighting for 210 h Elastic modulus Tensile strength Strain at break Strain at break Shore D hardness Impact resistance Density Density Degradation temperature Color Odor Tibo MPa 0.7 % MPa 1300 MPa 1400		0.8	%
Aging: reduction of flexural modulus after UV-lighting for 210 h Elastic modulus 1300 MPa Tensile strength 26 MPa Strain at break 250 % Shore D hardness Impact resistance no break General properties Density Degradation temperature 300 (572) °C (°F) Color transparent Odor	Mechanical properties at 21°C		
Elastic modulus 1300 MPa Tensile strength 26 MPa Strain at break 250 % Shore D hardness 68 Impact resistance no break General properties Density 1.01 g.cm-3 Degradation temperature 300 (572) °C (°F) Color transparent Odor	Flexural modulus	1150	MPa
Tensile strength 26 MPa Strain at break 250 % Shore D hardness 68 Impact resistance no break General properties Density 1.01 g.cm ⁻³ Degradation temperature 300 (572) °C (°F) Color transparent no smell	Aging: reduction of flexural modulus after UV-lighting for 210 h	0.7	%
Strain at break 250 % Shore D hardness 68 Impact resistance no break General properties Density 1.01 g.cm-3 Degradation temperature 300 (572) °C (°F) Color transparent Odor	Elastic modulus	1300	MPa
Shore D hardness 68 Impact resistance no break General properties Density 1.01 g.cm ⁻³ Degradation temperature 300 (572) °C (°F) Color transparent Odor no smell	Tensile strength	26	MPa
Impact resistance no break General properties Density 1.01 g.cm ⁻³ Degradation temperature 300 (572) °C (°F) Color transparent Odor no smell	Strain at break	250	%
General propertiesDensity1.01g.cm-3Degradation temperature300 (572)°C (°F)ColortransparentOdorno smell	Shore D hardness	68	
Density 1.01 g.cm ⁻³ Degradation temperature 300 (572) °C (°F) Color transparent Odor no smell	Impact resistance	no break	
Degradation temperature 300 (572) °C (°F) Color transparent Odor no smell	General properties		
Color transparent Odor no smell	Density	1.01	g.cm ⁻³
Odor no smell	Degradation temperature	300 (572)	°C (°F)
	Color	transparent	
Biocompatible yes	Odor	no smell	
	Biocompatible	yes	

TECHNICAL DATA SHEET



INFORMATION

The flexural modulus indicates the material stiffness in bending.

Aging: the indicated time (h) denotes the start of yellowing in an aging accelerator. 250 h equals 1 year of solar energy in Belgium.

The elastic modulus indicates the material stiffness in tensile.

The tensile strength is the pulling force required to break the material.

The strain at break is the length increase of the material when stretched until failure.

The hardness indicates the resistance of the material to compression.

The impact resistance is the susceptibility of the material to fracture under stresses applied at high speeds.

The degradation temperature is determined in helium.

The biocompatibility is studied according the guidelines of the International Organization for Standardization 10993 – Biological Evaluation of Medical Devices:

- o Primary skin irritation study.
- o Delayed dermal contact sensitization study.
- Cytotoxicity study.

Note:

Although the information in this publication is believed to be accurate and reliable, the data shown are for guidance only. Orfit Industries gives no guarantees about the results and assumes no liability in connection with them. The properties reported here are intended primarily to facilitate comparison among Orfit products. Standard testing methods often allow alternative measuring methods. Therefore, data from other sheet manufacturers may not be directly comparable. For additional information, please contact Orfit Industries.







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