TECHNICAL DATA SHEET

ORFITRANS™ STIFF PROTECT

Thermoforming conditions		
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 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	$g.cm^{-3}$
Degradation temperature	300 (572)	°C (°F)
Color	transparent	
Odor	no smell	
Biocompatible	yes	

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:

- Primary skin irritation study.
- 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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