

Osstyrol LPS ESD 2.0

HP-PM revision: 08/25

Description

LPS ESD 2.0 is the logical development of our product PS-EL. It offers very good mechanical and electrical properties and a density comparable with high impact polystyrene. PS-EL includes carbon black particles which can contaminate by release sensitive electronic components. This phenomenon is called "sloughing". Through the use of LPS ESD 2.0 this disadvantageous effect is avoided. LPS ESD 2.0 can be delivered in rolls or sheets with different conductivities.

Product information	Test method	Unit	Value
Mechanical properties			
Yield stress	ISO 527	MPa	
Tensile strain at yield	ISO 527	%	
Elongation at break	ISO 527	%	36
Tensile modulus	ISO 527	MPa	1550
Flexural strength	ISO 178	MPa	
Charpy impact strength 23°C	ISO 179/2C	kJ/m ²	
Charpy notched impact strength 23°C	ISO 179/2C	kJ/m ²	
Izod notched impact strength 23°C	ISO 180/1A	kJ/m ²	7
Ball indentation hardness H358/30	ISO 2039-1	MPa	
Thermal properties			
Vicat softening point VST/B/50	ISO 306	°C	92
Vicat softening point VST/A/50	ISO 306	°C	100
Deflection temperature 1.8 Mpa (HDT A)	ISO 75-2	°C	84
Deflection temperature 0.45 Mpa (HDT B)	ISO 75-2	°C	
Electrical properties			
Discharge *	IEC 614340-2-1:2002	+ 1.000 V auf + 100 V	< 0.01 s
Discharge *	IEC 614340-2-1:2002	- 1.000 V auf - 100 V	< 0.01 s
Surface resistivity	DIN 61340-2-3	Ohm	10E4 - 10E6
Volume resistivity	DIN 61340-2-3	Ohm cm	10E4 - 10E6
Electric strength K20/P50	IEC 60243-1	kV/mm	
Optical properties			
Surface gloss	DIN 67530	%	smooth
Flammability			
Flammability UL-Standard at thickness d=1.6 mm	UL 94	Class	
Testing of electrical insulating material, Method FH	IEC 60707	Level	
Testing of electrical insulating material, Method BH	IEC 60707	Level	
Testing of car industry's materials (d>1mm)	FMVSS 302		
Other properties			
Density at 23 °C	ISO 1183	g/cm ³	1.04-1.06
Water absorption, method A	DIN 53495/1	%	
Moisture absorption (standard conditioning atmosphere)		%	

Particularities

Important: The given values apply to the product condition upon delivery at customer. In particular, the conductivity is affected by storing conditions and storing duration as well as the kind of further processing. Depending on individual parameters (elongation ratio, residual wall thickness, temperatures) deep drawig influences the conductivity to different extents and, under extreme conditions, may lead to decomposition of conductivity. Measurement of conductivity is according to DIN 61.340-2-3.

* determined on a sheet with a thickness of 4,00 mm

Shelf life: We recommend to thermoform the material within 3 months after production because the material is hygroscopic.

The surface and volume resistance is permanent. We although recommend to use the material within 24 months.

Note

The information submitted in this publication is based on our current knowledge and experience. Tested are uncoloured products. In view of many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of the suitability for a specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed. In order to check the availability of products please contact us or our sales agency.