

Application: Shielding bags ESD are designed to protect and transport sensitive to static electricity discharge electronic devices and components. Shielding bags ESD are produced according with norms IEC61340-5-1; IEC 61340-5-3 and directive RoHS. Also with norm IEC 61340-4-8 / Tests Method.

General properties

Properties	Parameters
Material	Amine Free Shielding laminate ESD , Silica Free
Foil Color	Silver
Overprint	Information sign ESD + Lot Number (Mfg Date) + Individual Customer LOGO – if required / Color print: Black
Test methods	61340-2-3 for resistance values ; 61340-4-8 for shielding properties / energy
Bag Size	As the Customer Requirements / Custom sizes are possible
Additional possible applications	LAP, Zip Lock, adhesive tape, security tape
Item Number	As the Customer Requirements
Quantity of welds	2 side seals bag or 3 seals for bags longer than 610mm
According with norms	IEC 61340-5-1; IEC 61340-5-3
According with directive RoHS	SGS raport nr. TR568607
The period of validity***	2 years***

Physico chemical properties*

Properties	Test Methods	Unit	Typical value
Thickness	MB/MW/03 PN-ISO 4593	µm	76 ±8%
Size tolerance	PN-ISO 4593	mm	±5
Surface resistance inside	IEC 61340-2-3	Ω	< 1 x 10 ¹¹
Surface resistance outside	IEC 61340-2-3	Ω	< 1 x 10 ¹¹
Shielding properties	IEC 61340-4-8	nJ	< 10nJ
Adhesion strength PET/PP	MB/MW/15 ASTM D 882	N/mm ²	2,0
Sealing strength	MB/MW/07	N/15mm	18
Coefficient of friction	MB/MW/08 ASTM D 1894	-----	0,30
Oxygen transmission**	ASTM D-3985	Cm ³ /m ² 24h bar	96,6
Water vapour transmission**	ASTM F-1249	g/m ² 24h	7,8

*Properties were studies on sample shielding material ESD; ** Theoretical calculations;*** validity is typical for the type material and depend about place, environment conditions, using methods.

Static Shielding properties of the shielding-bag

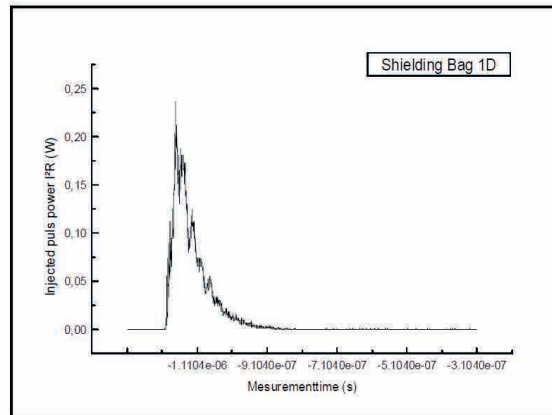


Image 3: Begin of the roll with an injection energy of 3.8 nJ

Limits

Electrostatic shielding HBM puls outside 1 kV, $E = 50 \mu\text{J}$, inside of the bag $E \leq 50 \text{ nJ}$.

