

STATIC SHIELDING BAGS

Multilayer static shielding bags with “Faraday Cage Effect” metal-in 3-layer structure (the metal layer is sandwiched between the internal PE and the external polyester layers, both antistatic). Excellent resistance to perforation, 75 micron thickness and light transparent blue colour

Surface Resistivity (ASTM D- 257 at 15% RH)	PET10^{12} Ohm/sq (external) PE10^{12} Ohm/sq (internal)
Electrostatic Decay (FTMS 101 METHOD 4046)	<math><0,1</math> sec
Capacitance Probe (EIA-541)	<math><30</math> volts difference
MVTR (ASTM F-1249)	0,35g nominal
Contact Corrosivity (FTMS 101C method 3005)	no visible sign after testing of deterioration
Ion Content (Sodium, Fluoride, Phosphate, & Sulphanate Ions) Amide free	Below Detectable Levels

Art. SHIELDO SM

- SM** 75x120mm
- SM** 100x150mm
- SM** 150x200mm
- SM** 150x250mm
- SM** 150x610mm
- SM** 200x250mm
- SM** 200x300mm
- SM** 250x300mm
- SM** 250x350mm
- SM** 250x600mm
- SM** 300x350mm
- SM** 300x400mm
- SM** 300x450mm
- SM** 350x450mm
- SM** 450x450mm
- SM** 450x600mm
- SM** 500x600mm



Art. SHIELDO SMC

Static shielding zip-lock bags

- SMC** 76x127mm
- SMC** 102x152mm
- SMC** 150x200mm
- SMC** 152x254mm
- SMC** 203x255mm
- SMC** 203x305mm
- SMC** 254x305mm
- SMC** 254x354mm
- SMC** 305x406mm
- SMC** 354x450mm



ANTISTATIC BAGS

Art. SA

SA polyethylene antistatic bags and tubing (pink transparent colour) provide correct and unexpensive ESD sensitive components and assemblies inside E.P.A. The material ensures longlasting antistatic non-generating properties, effective wearout and perforation resistance and total recyclability (04 LDPE)

Surf. Resistance 3×10^{11} Ohm/sq ASTM D-257-78
Static Decay from 5000V to 500V <math>< 0,4 \text{ sec.}</math> to 50V <math>< 1,0 \text{ sec.}</math>
Thickness 90 micron

BAGS

SA 100x150mm
SA 150x200mm
SA 150x250mm
SA 200x250mm
SA 200x300mm
SA 250x300mm
SA 250x350mm
SA 300x350mm
SA 300x400mm
SA 300x450mm
SA 350x450mm
SA 400x450mm
SA 450x610mm
SA 500x600mm

TUBING

SA-T 100mm
SA-T 200mm
SA-T 300mm
SA-T 400mm
SA-T 500mm
SA-T 600mm
SA-T 700mm



CONDUCTIVE BAGS

SB 100x100mm
SB 100x150mm
SB 150x200mm
SB 150x250mm
SB 200x250mm
SB 200x300mm
SB 250x300mm
SB 250x350mm
SB 300x400mm
SB 300x450mm
SB 400x450mm

Art. SB

Conductive bags and tubings. Black opaque colour, highest perforation resistance. Material: Conductive polyethylene.

Surf. resistance: 10^4 Ohm



BAG HEAT SEALERS AND CUTTERS

Art. SEAL HANDY 300

sealer 300mm, 380W, 5kg

Art. SEAL HANDY 300 CUT

sealer 300mm, with cutter, 380W, 5kg

Art. SEAL HANDY 400

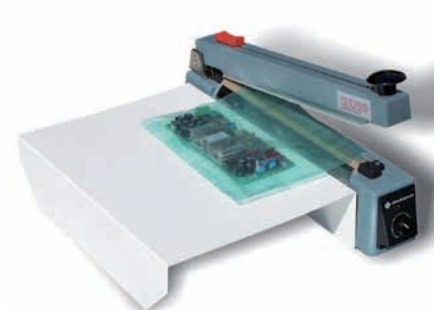
sealer 400mm, 500W, 6kg

Art. SEAL HANDY 400 CUT

sealer 400mm, with cutter, 500W, 6kg

Art. SEAL HANDY

Heat sealers designed both for ESD bags and tubings. Adjustable sealing time fits material and the thickness of the bag. The models with the cutting blades will turn tubing into single bags. Seal width: 2mm - Max material thickness: 2x0. 125mm For higher thicknesses, please apply for special models.



MOISTURE BARRIER BAGS

Art. SHIELDO SD

Moisture-barrier EMI/RFI shielding bags designed for the vacuum packaging of ESD and moisture-sensitive electronic components & parts. SHIELDO SD features a metallized multilayer antistatic film, strong heat sealing, resistance to perforation and excellent flexibility. Complying to EIA, IEC & MIL standards



FEATURES	TEST METHODS	TEST RESULTS
Thickness		3.4 mil (80 micron)
Yield		7,600 sq in/lb
Tensile Strength	ASTM D-882-67	> 25 lbs / in
Puncture Resistance	FTMS 101C method 2065	> 19 lbs
Tear Initiation	ASTM D-1004	> 2.5 lbs
Mullen Burst	ASTM D-774	80 psi
Seam Strength	ASTM D-882	> 14 lbs / in
Optical Density		Opaque (Silver)
Heat Seal		375°F 0.5 sec. 60 psi
MVTR	ASTM F-1249 @ 100F 100 sqin/24 hrs	< 0.01 gms
Surface Resistance	ASTM D-257 at 15 % RH	PE < 10 ¹¹ Ohms PET < 10 ¹¹ Ohms
Capacitance Probe	EIA-541	< 30 volts difference
EMI Shielding (shelf life above 5 years)	(mil 81705 Rev. C.)	> 45 dB Between 1 & 10 GHz
Contact Corrosivity	FTMS 101C method 3005	no visible sign
Ion Content		Below Detectable Levels

BARRIER BAGS LIST

- SD** 100x250mm
- SD** 150x660mm
- SD** 200x300mm
- SD** 250x400mm
- SD** 250x660mm
- SD** 450x450mm
- SD** 450x660mm



This symbol has been introduced to mark moisture barrier packaging. It stands together with other indications such as the ESD symbol or other EMI / RFI barrier indications as requested by the approved standards.

HUMIDITY INDICATOR CARDS

Humidity indicator cards are used to ensure that the package has not leaked humidity. In case, components manufacturers normally recommend to recondition the content. Standard indicators show markings. Ask for available models.



DESSICANT BAGS

Dessiccant bags are used inside the closed sealed bags to absorb the residual humidity (few%)

Dessiccant bags are sold in units (the quantity varies in accordance to EIA standards or to company standards.



HEAT VACUUM SEALER FOR BARRIER BAGS

HEAT VACUUM SEALER FOR BARRIER BAGS

SEAL 4000 and SEAL 9000 are the new heat vacuum sealing machines to safely vacuum package moisture vapours sensitive electronic components and assemblies.

WHY VACUUM?

Vacuum packaging protects components and assemblies from damages caused by humidity:

- avoiding the "pop-corn" effect (consisting in the explosion of the component due to sudden rise of temperature at the soldering process (fast outgoing of the vapour moisture accumulated)
- minimizing the oxygen and moisture corrosion danger on metal parts

SEAL 4000 and 9000 extract air (and moisture) and seal the bag at the same time.

FEATURES

Strong stainless steel housing In order to last even in harsh environment and heavy duty continued usage. Internal dry pump (double body) with 700 VA power allow usage in the most convenient place (no need of external air pressure hose)

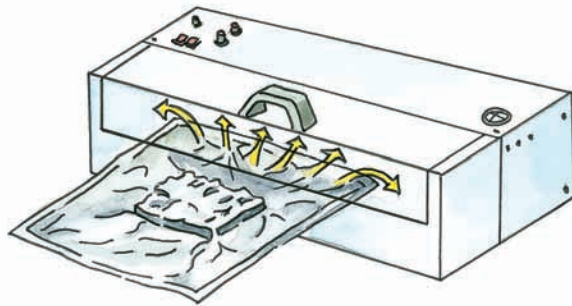


The jaws closure is secured by electromagnet. A pressure display shows the vacuum pressure reached.

NITROGEN INJECTION

The machines in the "G" versions are equipped with the inert gas injection input. Nitrogen is injected after the aspiration of moisture is completed

Art. SEAL 4000	sealing length 520 mm
Art. SEAL 9000	sealing length 800 mm
Art. SEAL 4000 G	sealing length 520 mm + nitrogen injection
Art. SEAL 9000 G	sealing length 800 mm + nitrogen injection

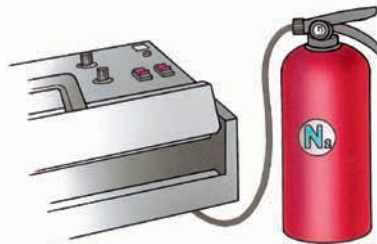


OPERATION

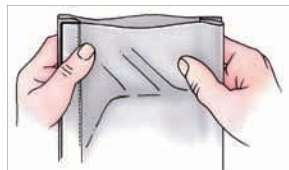
The Vacuum chamber aspiration system, unlike competition, extracts the air directly from all the open side of the bag. Therefore, much better and effective air aspiration also in the most hidden places inside the bag. Preventive double side bending of the bag moreover helps any inside collapse eliminating all air residues.

CONTROLS

Controls of the aspiration time and the sealing time, useful in case of repeated packaging operations. At the selected time the aspiration stops and the sealing starts automatically. In the same way the sealing action stops at the selected time and the machine opens the jaws releasing the bag. Manual stop is possible at all times during the process.



NITROGEN INJECTION (on "G" models)



Attention! Bend both sides of the bag before sealing. The air suction takes place all through the open side of the bag!



Hold the bag with both hands

ANTISTATIC BULK PACKAGING

ANTISTATIC BUBBLE PACK

Art. PLAC 9000

Polyethylene antistatic bubble film for general packaging purposes
Available both by the roll and on cuts (special sizes on request).

TECHNICAL FEATURES

Roll dimension	1.25x200mt. c.a.
Roll weight	25 kg (approx)
Sq m² weight	115 gr
Bubble diam.	10mm
Surface resistivity	10 ¹¹ Ohm/sq
Decay time	<2 sec.



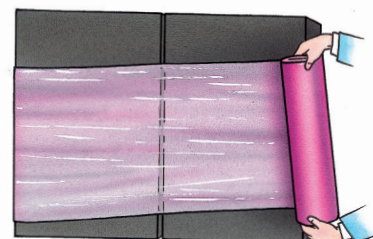
ANTISTATIC STRETCH FILM

Art. FE AS 30

Designed to stretch-package goods and boxes without static charges generation. Rolls of antistatic polyolefin, fully recyclable, pink colour.

TECHNICAL FEATURES

Roll length	300mt
Roll width	500mm
Film thickness	0.025
Core diam.	50mm



ANTISTATIC POLYURETHANE FOAMS

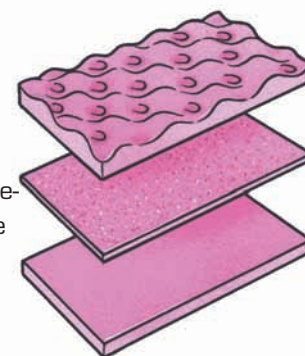
Antistatic polyurethane open cells foam. Soft cushioning foam designed for inside boxes lining. Available flat or profiled, with density 21 kg/m³. Minimizes tribo-charging.

Art. SCA

Flat foam, choice of thickness, 1x1m. Custom cuts on request

Art. SCA-PR

Profiled foam, 10mm base + 15mm profile peak, 1x1m. Custom cuts on request.



ANTISTATIC POLYETHYLENE FOAM

Antistatic polyethylene closed cells semi-rigid foam. Designed for PIN insertion, die-cuts for box separators, minimize tribocharge. No particulation, indicated for use cleanrooms

Art. SCA PE

Thickness 3mm and more. Custom cut on request. Density: 35kg/m³.

POLYURETHANE CONDUCTIVE FOAMS

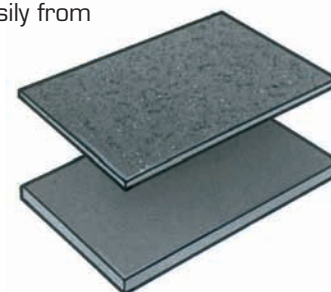
Permanently conductive, non corrosive foam. PH=7, cadmium-free, does not leave residues, neutral on gold, silver or copper; leads up to 70° C, withstands easily from - 20° to 100° C. Volume Res. 10³ - 5x10⁴Ω/cm.

Art. SCL-S

Soft cushioning foam, medium density: 23 kg/m³, 1x1m. Custom cuts on request

Art. SCL-HB

Semi-rigid foam, high density: 32 kg/m³, 1x1m. Custom cuts on request. Allows PIN insertion.



CONDUCTIVE POLYETHYLENE FOAM

Art. SCL PE

Conductive closed-cells polyethylene hard foam, non corrosive, withstands between - 40° and + 80° C. High density: 60 kg/m³, 1x1m. Custom cuts on request.