



HORIZONTAL WAFER SHIPPER MOISTURE BARRIER BAGS

*Safely protect and transport finished wafers
in full, thin or ultra-thin thicknesses*

Overview

The SmartStack® horizontal wafer shipping system is designed to reduce wafer breakage, die bond corrosion and particle contamination, increasing IC fab yield and profit.

Our moisture barrier bags are designed to protect wafers while used with our secondary packaging. They are ideal for medium to full vacuum packaging, shipping and handling of ESD-sensitive devices with contour surfaces.

Wafer Sizes

- 300 mm
- 200 mm
- 150 mm



Features and Benefits

Part Number	Features	Benefits
HWS-CMB-BAG	Clear bag	Clear barrier to see product, ID labels and bar codes inside the sealed bag
HWS300-CMB-BAG	ESD shielding plus medium level moisture barrier	Long-term ESD and moisture protection in Controlled Discharge Environment Puncture resistance for more handling steps
HWS-MB-BAG	Metallic bag	Long-term ESD and moisture protection in Controlled Discharge Environment
HWS300-MB-BAG	ESD shielding plus medium level moisture barrier	Puncture resistance for more handling steps

Specifications

Physical Properties

Part Number	Tensile Strength	Tear Strength	Mullen Burst	Puncture Resistance	Heat Seal Strength	MVTR	Surface Resistivity
HWS-CMB-BAG	MD 12500 psi/ TD 12500 psi	MD 5.4 lbs/ TD 6.2 lbs	120 psi	>21 lbs	>12 lbs/ in width	<0.005 grams	<1E12
HWS-MB-BAG	MD 8500 psi/ TD 8000 psi	MD 5.4 lbs/ TD 4.5 lbs	112 psi	>28 lbs	>20 lbs/ in width	<0.005 grams	<1E12

Chemical Properties

Chemical Properties	Method	Type	Value
Outgassing organics	ATD-GC/MS, 65°C, 20 min	Total cyclic siloxanes	<30.0 µg/g
	ATD-GC/MS, 65°C, 20 min	Long carbon chains	<50.0 µg/g
Aqueous leach anions	IC, 60°C, 20 min	Br	<4.0 µg/g
		Cl	<3.3 µg/g
		F	<2.0 µg/g
		NO ₂	<2.0 µg/g
		NO ₃	<30.0 µg/g
		SO ₄	<2.0 µg/g
		PO ₄	<2.0 µg/g
Aqueous leach nitrogen compounds	IC, 60°C, 20 min	NH ₄	<20.0 µg/g
Aqueous leach cations	ICP-AES, 60°C, 20 min	K	<4.0 µg/g
		Ca	<4.0 µg/g
		Mg	<4.0 µg/g
		Na	<4.0 µg/g

Dimensions

Part Number	Width	Length	Tolerance	Thickness
HWS-CMB-BAG	342.9 mm (13.5")	406.4 mm (16")	± 6.35 mm (1/4")	4.5 mm (0.0045") +0.0005/-0.0003
HWS300-CMB-BAG	482.6 mm (19")	533.4 mm (21")	± 6.35 mm (1/4")	4.5 mm (0.0045") +0.0005/-0.0003
HWS-MB-BAG	342.9 mm (13.5")	406.4 mm (16")	± 6.35 mm (1/4")	4.4 mm (0.0044") ±10%
HWS300-MB-BAG	482.6 mm (19")	533.4 mm (21")	± 6.35 mm (1/4")	4.4 mm (0.0044") ±10%

Compatibility

Compatible with the following SmartStack horizontal wafer shippers:

- HWS300-G2-61C02B (300 mm)
- HWS200-101A-61C02M (200 mm)
- HWS150-101-61C02M (150 mm)

Ordering Information

Part Number	Description	Qty
HWS-CMB-BAG	Clear	100
HWS300-CMB-BAG	Clear	100
HWS-MB-BAG	Metallic	100
HWS-300MB-BAG	Metallic	100

For More Information

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit www.entegris.com and select the Customer Service link for the center nearest you.

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