

SmartStack® HWS Canister 300 mm

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

Advancements in wafer fab and chip assembly technologies have rendered obsolete many finished wafer packaging systems used to transport and ship delicate wafers. For example, decreasing line widths and die bond pad size demand low ionic/outgassing and reduced particles. Thin wafers needed for stacked IC and smart card applications add yet another level of complexity to handling and transporting delicate substrates. Both issues must be addressed in a robust shipper to keep yield rates high and increase productivity in both fab and assembly operations.

The SmartStack® HWS canister provides the necessary protection against ionic, outgassing, and mechanical elements to maintain wafer integrity during transport, storage, or shipping.

FEATURES & BENEFITS

- Accommodates 1 to 25 wafers
- Made from low ionic/outgassing STAT-PRO® 100M material for proven fab performance
- ESD safe for maximum wafer/device protection
- Ergonomic, easy to use, open/close design
- Kinematic coupling machine interface allows seamless equipment operability
- Design provides migration path from manual to automated wafer packing/unpacking
- Large lot ID label area for maximum product identification and factory integration capabilities
- Lightweight design
- Order online at www.entegris.com with tools to help optimize your SmartStack system



SPECIFICATIONS

The SmartStack HWS300 canister utilizes an impact-resistant version of Entegris' fab proven STAT-PRO 100M polymer technology.

- Weight: 1.04 kg (2.3 lbs)
- 327 mm L × 327 mm W × 76 mm H (12.9" × 12.9" × 3")
- Each canister is shrink-wrapped
- Sold in full case quantity (5)

PHYSICAL SPECIFICATIONS

PROPERTY	TEST METHOD	TYPICAL VALUES
Specific gravity	ASTM D-792	0.97 g/cc
Tensile strength	ASTM D-638	33.3 MPa
Tensile modulus	ASTM D-638	2207 MPa
Tensile elongation	ASTM D-638	9.7%
Flexural modulus	ASTM D-790	2069 MPa
Notched izod	ASTM D-256	42.4 J/m
Unnotched izod	ASTM D-256	742 J/m
Volume resistivity	ASTM D-257	$10^1 - 10^3$ ohms-cm
Surface resistivity	ASTM D-257	$10^3 - 10^8$ ohms/sq

The information on physical properties included in this document is based on our experience to date, and we believe it to be reliable. Data is obtained from specimens molded under controlled conditions from representative samples of the compound described. Properties may be affected by the molding techniques and by the size and shape of the item molded. We cannot guarantee favorable results and no assurances can be implied that all molded articles have the same properties as those listed.

Organic contamination limits

Outgassing	<50 µg/g
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Ion contamination limits*

Fluoride (F)	<100 ng/g	Bromide (Br)	<10 ng/g
Chloride (Cl)	<200 ng/g	Ammonium (NH ₄)	<100 ng/g
Sulfate (SO ₄)	<250 ng/g	Calcium (Ca)	<4000 ng/g
Phosphate (PO ₄)	<100 ng/g	Potassium (K)	<200 ng/g
Nitrate (NO ₃)	<100 ng/g	Sodium (Na)	<700 ng/g
Nitrite (NO ₂)	<100 ng/g	Magnesium (Mg)	<250 ng/g

*Limits are set at resin level.

ORDERING INFORMATION

Part number	Description	Wafer size
HWS300-101A-61C02M	SmartStack HWS300	300 mm

FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit entegris.com and select the [Contact Us](#) link to find the customer service center nearest you.

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