



SMARTSTACK® HWS CANISTER 300 MM

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

Overview

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

- 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.devicecare.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 lb)
- L × W × H: 327 mm × 327 mm × 76 mm (12.9" × 12.9" × 3")
- Each canister is shrink-wrapped
- Sold in full case quantity (5)

Ordering Information

Part Number	Description	Wafer Size
HWS300-101A-61C02M	SmartStack HWS300	300 mm

Physical Specifications

Property	Test Method	Units	Typical Values
Specific gravity	ASTM D-792	g/cc	0.97
Tensile strength	ASTM D-638	MPa	33.3
Tensile modulus	ASTM D-638	MPa	2207
Tensile elongation	ASTM D-638	percent	9.7
Flexural modulus	ASTM D-790	MPa	2069
Notched izod	ASTM D-256	J/m	42.4
Unnotched izod	ASTM D-256	J/m	742
Volume resistivity	ASTM D-257	ohms-cm	10 ¹ -10 ³
Surface resistivity	ASTM D-257	ohms/sq.	10 ³ -10 ⁸

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
------------	----------

Ion Contamination Limits*

Fluoride (F)	<100
--------------	------

Chloride (Cl)	<200
---------------	------

Sulfate (SO ₄)	<250
----------------------------	------

Phosphate (PO ₄)	<100
------------------------------	------

Nitrate (NO ₃)	<100
----------------------------	------

Nitrite (NO ₂)	<100
----------------------------	------

Bromide (Br)	<10
--------------	-----

Ammonium (NH ₄)	<100
-----------------------------	------

Calcium (Ca)	<4000
--------------	-------

Potassium (K)	<200
---------------	------

Sodium (Na)	<700
-------------	------

Magnesium (Mg)	<250
----------------	------

*Values are measured in ng/g; limits are set at resin level.

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.

Terms and Conditions of Sale

All purchases are subject to Entegris' Terms and Conditions of Sale. To view and print this information, visit www.entegris.com and select the Legal Notices link from the footer.

Entegris®, the Entegris Rings Design®, Creating a Material Advantage®, STAT-PRO® and SmartStack® are registered trademarks of Entegris, Inc.

ENTEGRIS, INC.

Corporate Headquarters | 129 Concord Road | Billerica, MA 01821 USA
Customer Service Tel. +1 952 556 4181 | Customer Service Fax +1 952 556 8022
In North America 800 394 4083 | www.entegris.com

©2005-2013 Entegris, Inc. All rights reserved Printed in USA 2170-5492ENT-0913

