



Insulation



Description

The Owens Corning RA Series Appliance Insulation products are lightweight yellow blankets of inorganic glass fibers bonded with a thermoset resin. These products are designed to provide superior dimensional stability, excellent thermal and acoustical performance, and easy handling and installation.

Uses

RA insulation products are among the most versatile products offered by Owens Corning, used in applications such as:

- Residential and commercial refrigerators
- Residential and commercial freezers

- Walk-in coolers
- Reach-in coolers
- Acoustical treatment for refrigerated appliances
- Dishwashers
- Water coolers and dispensers
- Vending machines
- Display cases
- Insulated panels
- Insulated shipping containers
- Low temperature specialty equipment
- Hot water heaters
- Foam stop applications
- Compressor covers
- Transportation insulation – buses and trucks

Features and Benefits

Design Flexibility

The RA product line offers a wide range of thermal, acoustical, and mechanical performance levels and densities to provide cost efficient performance in many varied applications. These products are available in both roll and batt form.

Dimensional Stability

RA products have excellent resilience and compressive strengths.

Non-corrosive

RA is non-corrosive, and will not accelerate corrosion on copper, aluminum, or steel.

Fungi & Bacteria Resistant

RA products will neither promote nor sustain growth of bacteria or fungus.

Excellent Acoustical Properties

The RA series of products offer documented and proven acoustical performance for a wide range of applications.

Availability

RA Appliance Insulation is available in both batt and roll form and 1/4" increments in the following thicknesses:

Product	Thickness	
	Rolls	Batts
RA-28	3/4" – 6"	Not Available
RA-26	3/4" – 5"	Not Available
RA-25	3/4" – 5"	Not Available
RA-24	3/4" – 4"	3/4" – 4 1/2"
RA-23	3/4" – 3"	3/4" – 3 1/2"
RA-22	3/4" – 1 1/2"	3/4" – 2 1/2"

Physical Property Data

Property	Test Method	Value
Surface Burning Characteristics*	ASTM E 84 or UL723	Meeting 25/50
Operating Temperature	ASTM C 411	Up to 350°F (176°C)
Corrosion	ASTM C 665	Meets standard
Mold Growth	ASTM C 1338	Meets standard
Thermal Conductivity	ASTM C 518	See table
Sound Absorption	ASTM C 423	See table

* The surface burning characteristics of these products have been determined in accordance with UL723, ASTM E 84, or CAN/ULC-S102-M. This standard should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use.

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Note

For additional information, refer to:
 CAS EA-146.03 - RA Batts
 CAS EA-149.04 - RA Rolls
 Material Safety Data Sheet
 15-MSD-17020-01-G
 Data subject to change without notice.

Thermal Conductivity – “k”, ASTM C 177

Type	Nominal “k”		Density*	
	BTU•in/hr•ft ² •°F [at 75° (23°C) mean]	W/mK	(pcf)	(Kg/M3)
RA-28	0.283	0.041	0.80	12.9
RA-26	0.260	0.037	0.95	15.2
RA-25	0.250	0.036	1.08	17.3
RA-24	0.240	0.035	1.34	21.5
RA-23	0.231	0.033	1.66	26.6
RA-22	0.223	0.032	2.27	36.4

* Density value is nominal. Product control is on thermal conductivity.

Sound Absorption Coefficient, ASTM C 423 – Type “A” Mounting*

Product	Thickness (Inches)	Octave Band Center Frequencies, Hz.							NRC	SAA
		125	250	500	1000	2000	4000			
RA-28	1.0	0.12	0.34	0.63	0.81	0.83	0.87	0.65	0.65	
RA-28	2.0	0.20	0.64	0.92	0.99	0.95	0.92	0.90	0.87	
RA-26	1.0	0.11	0.30	0.59	0.77	0.85	0.86	0.65	0.63	
RA-26	2.0	0.26	0.77	1.09	1.06	0.96	1.00	0.95	0.97	
RA-25	1.0	0.12	0.36	0.75	0.91	0.97	0.91	0.75	0.75	
RA-24	1.0	0.11	0.38	0.71	0.90	0.95	0.91	0.75	0.74	
RA-24	2.0	0.15	0.77	1.11	1.08	1.00	1.03	1.00	0.99	
RA-23	1.0	0.11	0.38	0.80	0.95	0.99	0.95	0.80	0.79	
RA-23	2.0	0.13	0.77	1.12	1.09	1.04	1.04	1.00	1.00	
RA-22	2.0	0.20	0.87	1.19	1.11	1.06	1.05	1.05	1.04	

* Nominal samples were measured in accordance with ASTM C 423. These measured absorption coefficients were adjusted to values representative of the product with mean specification properties. While these values are an accurate representation of our product, they are for design approximations only. Production, testing, and application variabilities will alter results. Specific designs should be evaluated in end-use configurations.



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