



Product Data Sheet



Description

Owens Corning's ThermoRange® System (TRS) insulation products are flexible white blankets of inorganic glass fibers bonded with a proprietary thermoset resin. TRS is designed to provide excellent handling characteristics and dimensional stability during installation at OEM facilities and also provides low smoke and odor during the initial self-clean cycle for ranges.

Product Applications

TRS insulation may be used in applications from subzero to 1,000°F. It is the recommended product for:

- Self-clean ranges
- Standard ranges
- Countertop ranges
- Broilers
- Oven panels
- Commercial ovens
- Fireplaces
- Solar collectors
- Incinerators
- Any heated appliance applications

Typical Physical Properties

Property	Test Method	Result
Surface Burning Characteristics	ASTM E84 or UL 723	Meeting 25/50
Operating Temperature Range	ASTM C411	Up to 1,000°F (538°C)
Corrosion	ASTM C665	Meets Requirements
Stress Corrosion	ASTM C795	Meets Standard ¹

1. Preproduction qualification testing complete and on file. Chemical analysis of each production lot required for total conformance.

Thermal Conductivity – “k”, ASTM C177

	Type				
	TRS-10	TRS-20	TRS-30	TRS-40	TRS-50
Density ¹					
pcf	1.02	1.26	1.76	2.50	3.71
kg/m ³	16.3	20.2	28.2	40.1	59.4
Nominal “k” BTU•in/hr•ft. ² •°F					
75°F	0.260	0.242	0.230	0.220	0.211
300°F	0.510	0.460	0.390	0.350	0.310
500°F	0.850	0.750	0.620	0.520	0.440
Nominal “k” W/mK					
23°C	0.037	0.035	0.033	0.032	0.031
149°C	0.074	0.066	0.056	0.050	0.045
260°C	0.123	0.108	0.089	0.075	0.063

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

Sound Absorption Coefficient, ASTM C423 – Type A Mounting¹

Product	Thickness (Inches)	Octave Band Center Frequencies, Hz.							
		125	250	500	1000	2000	4000	NRC	SAA
TRS-10	1.0	0.09	0.31	0.65	0.85	0.90	0.90	0.70	0.68
TRS-10	2.0	0.18	0.80	1.11	1.03	0.97	1.01	1.00	0.97
TRS-20	1.0	0.17	0.45	0.84	0.94	0.96	0.93	0.80	0.80
TRS-20	2.0	0.25	0.83	1.17	1.09	0.98	1.01	1.00	1.01
TRS-30	1.0	0.13	0.39	0.77	0.94	1.01	0.99	0.80	0.78
TRS-30	2.0	0.25	0.87	1.17	1.12	1.04	1.07	1.05	1.05
TRS-40	1.0	0.08	0.34	0.81	0.98	1.03	1.03	0.80	0.79
TRS-50	1.0	0.10	0.57	1.09	1.17	1.12	1.17	1.00	0.99
TRS-50	2.0	0.25	1.06	1.18	1.09	1.05	1.05	1.10	1.08

1. 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.

Key Features

Health & Safety

Our proprietary binder chemistry is designed to eliminate consumer concerns about emissions and to assure compliance with safe levels of Volatile Organic Compounds. TRS's softer, friendlier fibers make it easier to handle and install, and are less irritating.

Low Smoke and Odor

The proprietary binder chemistry of TRS and the low binder content reduces smoke and odor for the consumer during the self-clean cycle for ranges.

Dimensional Stability

The resilience and proven thickness control of TRS assures that the space to be insulated is completely filled, providing maximum range efficiency.

Easy Installation

Good tensile strength and thickness control make TRS easy to handle and install.

Non-corrosive

TRS is non-corrosive, and will not accelerate corrosion on copper, aluminum, or steel per ASTM C665.



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Design Flexibility

ThermoRange System insulation is available in five thermal performance levels providing maximum performance at minimum cost.

High Temperature Performance

The proprietary binder chemistry, low smoke and odor characteristics, easy handling, and high resilience of TRS, make it the preferred insulation for self-clean ranges and other high temperature applications.

Availability

TRS Range Insulation is available in both batt and roll form in ¼" increments and the following thicknesses:

Product	Thickness
TRS-10	1" – 5" (Rolls only)
TRS-20	1" – 5" (Rolls only)
TRS-30	1" – 3" (Rolls & Batts)
TRS-40	¾" – 2½" (Rolls & Batts)
TRS-50	¾" – 2" (Rolls & Batts)

Notes

For additional information refer to:

- Customer Acceptance Standards – *ThermoRange* System Batts & Rolls – CAS EA-143.42
- Material Safety Data Sheet – *ThermoRange* System Insulation – MSDS 15-MSD-23117

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