



Industrial Insulation Group, LLC

A Calsilite/Johns Manville Joint Venture

Pipe & Equipment Insulations

Sproule WR-1200™

Perlite Pipe & Block Insulation

Description

Sproule WR-1200 is a molded, high-temperature pipe and block insulation with exceptional corrosion inhibiting properties. For use on systems operating up to 1200°F (649°C), it is composed of expanded perlite, uniformly reinforced with a high-strength fiber, and with a binder that contains sodium silicate, long recognized as an excellent corrosion inhibitor. Sproule WR-1200 is produced with a blue visual color coding dispersed throughout the product to assure it can be identified as asbestos-free. It meets or exceeds the physical property requirements of ASTM C 610.

Applications

Because of its strength, low thermal conductivity and durability, it is an excellent product for application on most high-temperature piping and equipment. Because of its corrosion inhibiting properties, Sproule WR-1200 is especially recommended for industrial processing and power generating facility applications using stainless steel piping, which is very susceptible to stress corrosion cracking at operating temperatures above 140°F (60°C).

Advantages

- Non-wicking and high in silicates making it an excellent corrosion inhibitor (the molecular structure of the sodium silicate in the binder has a negative charge and, therefore, is attracted to the positive charge of the metal pipe, which it coats and protects against moisture, oxygen, chlorides and other corrosive elements)
- Inorganic binders will not burn out and weaken the insulation
- All pipe insulation sections shrink-wrapped with poly film to protect from abrasive damage and breakage during shipment
- All block insulation is manufactured with reinforced scrim built in beneath the outside surface to enhance structural integrity



Available Forms and Sizes

Pipe Sizes		Sproule WR-1200 Form
in.	mm	
1/2 - 24	15 - 600	Sectional Pipe Insulation*
24 - 40	600 - 1000	Quad Pipe Insulation

* See Sproule WR-1200 List Price Schedule (IIG-P-2) or Sproule Packaging and Shipping Data (IIG-P-5) to determine availability of 2-piece or 3-piece sections by I.D. pipe size.

Insulation Type**	Width		Thickness	
	in.	mm	in.	mm
Pipe†	—	—	1-4	25-102
Flat Block	6 or 12	152 or 305	1-5	25-127
Scored Block	12	305	1½-5	38-127
V-Groove Block††	12	305	2-5	51-127

Notes:

** All pipe and block insulations are 36" (914 mm) in length.

† Double layered pipe insulation is available for heat-traced line applications.

†† Variations in the number of scores or grooves are available upon request.

V-Grooved Block Application Guide

Insulation Thickness		Minimum Diameter			
		Triple Scored		Single Scored	
in.	mm	in.	mm	in.	mm
1½	38	30	762	95	2413
2	51	40	1016	125	3175
2½	64	50	1270	155	3937
3	76	60	1524	190	4826
3½	89	70	1778	220	5588
4	102	—	—	250	6350

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Fire Safety

Surface Burning Characteristics. When tested in accordance with ASTM E 84, Sproule WR-1200 has flame spread/smoke developed ratings of 0/0.

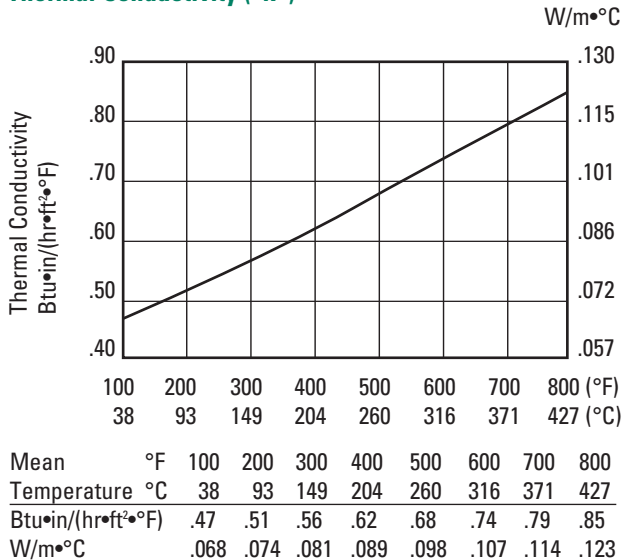
Hot Surface Performance. Sproule WR-1200 passes ASTM C 411 to 1200°F (649°C).

Specification Compliance

ASTM C 610	Mercury Free
ASTM C 795	Food Grade Acceptable
NRC 1.36	

Certification of Conformance available on request.

Thermal Conductivity ("k")*



*Sproule WR-1200 Block Insulation as tested in accordance with ASTM C 177.

Minimum Physical Property Requirements of ASTM C 610

Average Density	13.0 lbs. per cu. ft. (208.3 kgs./m³)
Flexural Strength	50-60 psi (345-414 kPa)
ASTM C 446	
Compressive Strength	80 psi (552 kPa) to Produce
ASTM C 165	5% Compression
Linear Shrinkage	Less than 2.0% After 24-Hour
ASTM C 356	Soaking Period at 1200°F (649°C)
Maximum Service Temperature	1200°F (649°C)
ASTM C 411	
Surface Burning Characteristics	Flame Spread - 0
ASTM E 84	Smoke Developed - 0
Acid Resistance	After 1 Week Exposure:
10% Sulfuric Acid	No Effect
10% Hydrochloric Acid	No Effect
Water Absorption	
By Volume-Avg.	0.4%
By Weight-Avg.	6.02%
ASTM C 209	
Corrosion Protection	
Leachable Silicates	Approx. 50,000 ppm
ASTM C 871	

Government Certification

When ordering material to comply with any government specification or any other listed specification, a statement of the fact must appear on the purchase order. Government regulations and other listed specifications require specific lot testing, and prohibit the certification of compliance after shipment has been made. There may be additional charges associated with specification compliance testing. Please refer to IIG-CSP-3 for certification procedures and charges.

For technical information and assistance regarding application information, code approvals, and performance specifications, call **1-800-872-0338**.

For Customer Service and Order Placement

(800) 334-7997
Fax: (912) 267-6096

For Sales Information

(800) 866-3234
Fax: (912) 267-6096

For Technical Information

(800) 872-0338
Fax: (970) 858-9641



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IIG-200 2-05 (Replaces 4-04)

The physical and chemical properties of the Sproule WR-1200™ Perlite Pipe and Block Insulation presented herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Any references to numerical flame spread or smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the Customer Service Office to assure current information. **All Industrial Insulation Group products are sold subject to the IIG Limited Warranty and Limitation of Remedy. For a copy of the IIG Limited Warranty and Limitation of Remedy, call (800) 334-7997.**