



**Thermal Industrial Insulation Manufactured By:**  
**Howred Corp.**

**PRODUCT**

GOODTEMP is a high temperature thermal insulation made of expanded perlite and sodium silicate reinforced with fibers to increase impact resistance. This thermal insulation is inhibited, asbestos free high temperature insulation. Being inherently inhibited, GOODTEMP protects austenitic stainless steel piping and equipment from failure due to chloride stress corrosion cracking. GOODTEMP also inhibits corrosion of other ferrous metals. The unique characteristic of bonding millions of vitrified air cells gives abundant industrial applications to this inhibited high temperature insulation.

**APPLICATIONS**

GOODTEMP is recommended for insulating piping, vessels and equipment in continuous and cyclic operation. It is especially suited to new high temperature applications in process piping, refractory use and in chemical plants and refineries. **Its moisture resistance is particularly advantageous for installations in high humidity and high rainfall areas. Sodium silicate as the primary binding agent gives corrosive inhibition without equal among manufacturers of high temperature insulation.** The lack of asbestos makes GOODTEMP compatible with use in operations faced with limitations imposed by the Occupational Safety and Health Association.

**MAJOR ADVANTAGES**

Moisture Resistant.....	low absorption, corrosion guard, construction savings
Fire-Resistant.....	does not act as wick, protects against actual fire damage
Superior Inhibition.....	provides corrosion inhibition for austenitic stainless steel and other ferrous metals
Low Shrinkage.....	less than 1% linear to 1200°F
Corrosion Protection.....	acid resistant; contains virtually no chloride, no lime
No Asbestos.....	no health hazards, meets OSHA requirements
High Strength and Flexibility.....	easier installation, improved appearance, longer life
Metric Lengths.....	all one meter lengths
Cost and Time Savings.....	full rating without double layers
Easily Identified.....	because it's pink, you can easily spot asbestos free GOODTEMP
Retains strength at High Temperatures.....	binder does not burn out, material will not flake, or discolor

## PHYSICAL PROPERTIES

Temperature Limits.....	Maximum 1200°F (650 °C) Continuous 1200°F (650°C) Cyclic 1200°F (650°C)
Density (dry) nominal .....	12 lbs./cu. ft.(192 kg/m <sup>3</sup> )
Compressive strength average – 5% deformation.....	134 psi
Linear shrinkage average .....	less than 1%
Flexural strength.....	54 psi
Water absorption	
By volume @ 90% relative humidity 4 weeks.....	1.30%
By volume, immersed 24 hours.....	2.70%
Acid resistance (after 24 hours immersion)	
25% Sulfuric or hydrochloric acid.....	No effect
Chloride Stress Corrosion Cracking.....	Dana Test Passed
Thermal conductivity expressed as BTU/hr./ft <sup>2</sup> /°F/in. (SI Units W/M-K)	

	ASTM C-335	ASTM C-177
200°F ( 93°C) .....	.48 (.069)	.53 (.076)
300°F (149°C) .....	.54 (.078)	.58 (.084)
400°F (204°C) .....	.59 (.085)	.63 (.091)
500°F (260°C) .....	.65 (.094)	.68 (.097)
600°F (316°C) .....	.70 (.101)	.72 (.104)
700°F (371°C) .....	.76 (.110)	.77 (.112)

Complies with:	A.S.T.M. C-610	MIL.I 24244 A&B
	A.S.T.M. C-692	NRC 1.36
	A.S.T.M. C-795	UL 1709 Section 9 (74 Min)
	A.S.T.M. C-871	

## STANDARD SIZES

Goodtemp simplifies metric conversion through the use of standard one meter lengths.

### Pipe Insulation

Pipe Sizes	Sectional.....	1/2" IPS through 20" IPS
	Quads.....	22" and 24" IPS (2" through 4" thick)
	Curved Radius Block.....	20" IPS and larger
Thickness	1" through 4" single layer (Double layer per customer requirements)	
	Standard Length .....	39.37" (1 meter)

### Block Insulation

Standard Width.....	6", 12", 18"
Standard Length.....	39.37" (1 meter)
Thickness.....	1" through 6" in 1/2" increments
V-Grooved/Scored.....	1" through 4" in widths of 12" and 18"
Curved Block Segments.....	20" diameter and larger

- Note: GOODTEMP has manufacturing capabilities for special applications such as:
1. Single layer pipe insulation thicknesses in excess of 4"
  2. Tubing sizes for small diameter piping
  3. Mitered elbow and tee covers



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