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MATERIALS		THERMAL INSULATION STANDARD ENGINEERING SPECIFICATION	
MATERIAL SPECIFICATION SERIES 100 PREFORMED BLOCK AND PIPE		ISSUED OCT 1954	SN 100 M Page 1 of 12
		REVISED JAN 1965	
Code	102*	102.1*	
Material	Calcium silicate	Calcium silicate-inhibited	
Material Description	Reacted hydrous calcium silicate reinforced with mineral fibers	Reacted hydrous calcium silicate with inhibitor for chloride stress corrosion cracking and reinforced with mineral fibers	
Temperature Range	1200°F max	1200°F max	
X Factor	500°F - 0.60 max	500°F - 0.60 max	
Density	14 lb per cu ft max	14 lb per cu ft max	
Compressive Strength	60 lb per sq in. min at 5% deformation	60 lb per sq in. min at 5% deformation	
Manufacturing Process	Pen molded, precision molded, or filter press molded	Precision molded	
Resistance to Breakage in Handling	Block must average 2" or greater in drop test per ASTM C 487.		
Dimensions	See SN30	See SN30	
Other Qualifications		Stressed Type 304 stainless steel U-bend specimens at 100°C, when in contact with this insulating material in the Du Pont wick test with 1500 ppm chloride as NaCl in the test water, shall show no cracking at the end of 144 hours exposure	
The following materials have proven satisfactory in field tests and proof has been furnished by the manufacturers that the product meets the above specifications.			
* Bands are supplied on extra cost. Order must state "without bands" if not required.	Calcell	Thermalit™	
For 11" IPS and larger there is an additional charge for 2nd surface cover. Material should be specified "without 2nd surface" to avoid extra charge.	The Rubberoid Co	Seldwin-Ehren-Mill, Inc	
† Codes 184 and 186 are acceptable alternatives unless noted on the Product Specifications.	Kaylo		
‡ Expanded Perlite insulation with fittings available in covered, welded, and cover types.	Quano-Corning Corp		
	Thermoseal		
	John-Manville Sales Corp		
	Calcomp		
	Fiberboard Paper Products Corp		
	Coretemp ?		
	Phillips Corp Mfg Co		
	Thermalit™		
	Seldwin-Ehren-Mill, Inc		
** Thermalit is a gray material with longitudinal extrusion marks on block and pipe covering. The ends and no more than one edge of block and the edges and ends of pipe covering will show cutting marks. This material is acceptable in Seldwin-Ehren-Mill printed catalogs, not in catalogs ever labeled with a Seldwin-Ehren-Mill name. Arranging "L-X" appears with a "B" in the lower left-hand corner of the label will contain acceptable material.			
Vendors and merchandise designations are given to describe materials and may not include all acceptable products. Suggestions are to be made only on approval of the authority initiating the use of this specification.			

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DU 045888

Code	106	106	
Material	Inorganic silicates	Asbestos fiber and sodium silicate	
Material Description	Inorganic silica and asbestos fibers	Compressed fluffy amosite asbestos fiber sprayed with sodium silicate to form a mat containing a minimum of 20% sodium silicate by weight. Asbestos mat is then sprinkled with diatomaceous earth to provide an integral refractory casting.	
Temperature Range	100°F to 1800°F	1200°F max	
K Factor	Block - 500°F - 0.38 max	400°F - 0.54 max 600°F - 0.65 max	
Density	Block - 14 lb per cu ft	20 lb per cu ft max	
Compressive Strength	65 lb per sq in. min at 5% deformation	27 lb per sq in. at 10% deformation - dry	
Manufacturing Process		Formed and comp on mandrel. Pipe mach cut on die	
Resistance to Breakage in Handling	Block must average 3" or greater in drop test per ASTM C 487, tentative method of test for resistance to dropping of preformed block thermal insulation.		
Other Qualifications	Good mechanical strength. Shrinkage less than 2% at 1600°F	Formed on a mandrel to a predetermined weight. Pressed to obtain the desired density, and baked. Stressed Type 304 stainless steel U-bend specimens at 100°C, when in contact with this insulating material in the Du Pont wet test with 1500 ppm chloride as NaCl in the test water, shall show no cracking at the end of 144 hours exposure.	
The following materials have proven satisfactory in field tests and proof has been furnished by the manufacturers that their product meets the above specifications.			
* Minimum thickness available 1 1/2", also available in pipe covering on special order † Pipe covering only	Kevlar 29*	Unibestos	
	Owens-Corning Corp	Pittsburgh Corning Corp	
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