

Laboratory Pibco Limited R & D Centre, 2, Kalkaji Industrial Area, New Delhi

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5219

Page 1 of 4

Validity 14.10.2017 to 13.10.2019

Last Amended on 03.11.2017

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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**CHEMICAL TESTING**

I.	<b>BUILDING MATERIALS</b>			
1.	<b>Bonded Mineral Wool/ Thermal Insulation Materials</b>	Sulphur	IS 3144 (Cl. No. 19)	0.01% to 2.00%
		Odour Emission Test	IS 3144 (Cl. No. 18)	Qualitative
		Determination of oil	IS 3144 (Cl. No. 20)	0.1% to 10%
		Test for Alkalinity (pH)	IS 3144 (Cl. No. 25)	1.00 to 14.00
		Chloride Content	IS 3144 (Cl. No. 26)	1.5 mg/l to 5000 mg/l
		Organic Matter	IS 3144 (Cl. No. 27)	0.1% to 20%
		Leachable Sodium Ions	ASTM C 871 (Cl. No. 10.4.1)	2 mg/l to 500 mg/l
		Leachable Chloride Ions	ASTM C 871 (Cl. No. 10.1.3)	1.8 mg/l to 100 mg/l
		Leachable Fluoride Ions	ASTM C 871 (Cl. No. 10.2.1)	0.2 mg/l to saturated
		Leachable Silicate Ions	ASTM C 871 (Cl. No. 10.3.2)	2 mg/l to 1000 mg/l
		External Stress corrosion cracking of austenitic stainless steel	ASTM C 692	Qualitative
	Determination of sodium	IS 9497	0.01% to 99.99%	
2.	<b>Ceramic Fibre &amp; Products</b>	Silica	IS 1527	35 % to 75%
3.	<b>Non Metallic Coating On Metallic Base</b>	Salt Spray Test	ASTM B 117	Qualitative
II.	<b>WATER</b>			
1.	<b>Potable Water, Ground Water, Surface Water &amp; Industrial Water</b>	pH Value	IS 3025 (Part 11)	1 to 14
		Specific Conductance	IS 3025 (Part 14)	0.01 to 5000 µmho/cm
		Total Solids, mg/l	IS 3025 (Part 15)	5 mg/l to 25000 mg/l

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Page 2 of 4

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		Total Dissolved Solids, mg/l	IS 3025 (Part 16)	5 mg/l to 20000 mg/l
		Acidity as CaCO <sub>3</sub> , mg/l	IS 3025 (Part 22)	0.5 mg/l to 1000 mg/l
		Total Alkalinity as CaCO <sub>3</sub> , mg/l	IS 3025 (Part 23)	0.5 to 1000 mg/l
		Chloride as Cl, mg/l	IS 3025 (Part 32)	1.5 mg/l to 5000 mg/l
		Sodium as Na, mg/l	IS 3025 (Part 45)	1 mg/l to 500 mg/l
		Potassium as K, mg/l	IS 3025 (Part 45)	1 mg/l to 200 mg/l

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Pooja Singh  
Convenor

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N. Venkateswaran  
Program Director

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Page 3 of 4

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**MECHANICAL TESTING**

I.	BUILDING MATERIALS			
1.	<b>Bonded Mineral Wool /Thermal Insulation Materials</b>	Length & Width	IS 3144 (Cl. No. 6)	0.1 mm to 1000 mm
		Thickness	IS 3144 (Cl. No. 7)	0.1 mm to 150 mm
		Resistance to Compression	IS 3144 (Cl. No. 8)	00.1 N to 5000 N
		Bulk Density	IS 3144 (Cl. No. 9)	01.0 kg/m <sup>3</sup> to 500 kg/m <sup>3</sup>
		Bulk Density under specified Load	IS 3144 (Cl. No. 10)	01.0 kg/m <sup>3</sup> to 500 kg/m <sup>3</sup>
		Moisture Content on as Received basis	IS 3144 (Cl. No. 14)	0.01% to 20%
		Moisture Absorption	IS 3144 (Cl. No. 15)	0.01% to 20%
		Settling due to Vibration and Jolting	IS 3144 (Cl. No. 22) BS:2972 (Sec. 9, Cl. No. 29)	0.01% to 5%
		Water vapour permeance	IS 3144 (Cl. No. 23)	0.1% to 20%
		Fiber Diameter	IS 3144 (Cl. No. 24)	(1 to 100μ)
		Shot Content	IS 3144 (Cl. No. 13) ASTM C1335	1% to 50%
		Recovery after Compression	IS 8183 (Annex A, Cl. No. 4.3)	0.01 mm to 150 mm
		Thermal conductivity	IS 3144 (Cl. No. 11) IS 3346, ASTM C 177, ASTM C 518, En 12667, BS 874 : Part 2 (Sec 2.1)	0.002 W/mk to 0.20 W/mk
			Incombustibility Test	IS 3144 (Cl. No. 16)
	Water absorption by partial immersion	EN 1609 EN 13472	0.01 kg/m <sup>2</sup> to 50 kg/m <sup>2</sup>	
	Water Vapour sorption	ASTM C1104M	0.01% to 20%	
	Maximum Recommended Temperature	IS 3144 (Cl. No. 12)	Qualitative (50°C to 1000°C)	

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Page 4 of 4

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		Compressive Properties	ASTM C 165	0.1 N to 5000 N
		Hot Surface performance	ASTM C 411	Qualitative (50°C to 1000°C)
		Linear Shrinkage	ASTM C 356	0.1% to 20%
		Maximum Service Temperature	EN 14706	Qualitative (50°C to 1000°C)
		Heat stability	BS 2972 (Sec. 6)	Qualitative (50°C to 1000°C)
2.	Ceramic Fibre & Products/ Ceramic Fiber Vacuum Board	Bulk Density	IS 14656	1 kg/m <sup>3</sup> to 500 kg/m <sup>3</sup>
		Shot Content	IS 14656 ASTM C1335	1 % to 50 %
		Tensile Strength	IS 14656 BS 1902-6	0.1 N to 5000 N
		Fibre Dia	IS 14656 IS 3144	Qualitative (1 to 100μ)
		Linear Shrinkage	IS 14656 BS 1902-6	0.1% to 20%
		Thermal Conductivity	IS 3346 ASTM C177	0.002 W/mk to 0.20 W/mk
		Compressive Strength At 10% Deformation At 25% Deformation	IS 11239 (Part 11) BS 4370-2	0.5 N to 5000 N
3.	Polyurethane Foam (PUF) /Poly Iso-Cynaurate (PIR)	Compressive Strength	IS 11239 (Part 11) BS 4370-1	0.5 N to 5000 N
		Dimensional Stability	IS 11239 (Part 3)	Qualitative (50°C to 1000°C)
		Thermal Conductivity	ASTM C518 ISO 8301	0.002 to 0.20 W/mk
		Water Vapour Permeability	IS 11239 (Part 4)	0.01% to 20%