

Product:	<b>ROCKWOOL® stone wool</b>	P.D.S
Type:	<b>MEDIUM-WEIGHT FLEXIBLE BLANKET</b>	RTB006
Name:	<b>RockTech B 400 FF (for use up to 650° C)</b>	Page 1 of 4

### Description

ROCKWOOL RockTech 400 is a high quality resin-bonded light-weight blanket with a reinforced aluminium foil facing bonded to one surface with excellent thermal, acoustic and fire safety properties.

Applications for RockTech 400 are primarily for medium temperature thermal insulations and for general acoustic applications. As a general rule flexible blankets should not be used for insulating piping. Wired mattress products or pipe sections are preferred products in this application.

Standard Sizes (mm)

Thickness	RockTech 300	Rolls Per Pack	M <sup>2</sup> Per Roll
25*	6000 x 1200	1	7.2
38*	6000 x 1200	1	7.2
50	5000 x 1200	1	6
75	4000 x 600	1	4.8

\*Not a stock item, but are available to order. Metric thickness, special sizes are available to order but may be subject to minimum production quantity requirements.

### Product Performance and Properties

**Density:** >100 kg/m<sup>3</sup> being delivered density (nominal) according to ASTM C612 - 93

**Service Temperature:** Maximum continuous service temperature on plain surface 650° (1,200°F) according to ASTM C411. Facing has a limiting temperature of 180°C.

**Thermal Conductivity (typical data):** Tested in accordance with DIN 52612

Mean Temp°C	50	100	150	200	250	300
"K" value (W/m.K)	0.040	0.045	0.053	0.063	0.075	0.089

## PRODUCT DATA SHEET

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**Corrosion Resistance:** RockTech 400 base stone wool is chemically neutral and will neither cause nor promote corrosion.  
**Chemical Neutrality:**

**Corrosion Resistance:** RockTech 400 base stone wool has a very low content of water-leachable chloride, less than 6 ppm so it can be safely used on austenitic stainless steel. Meets the requirements for use over stainless steel in accordance with ASTM C795.  
**Water Leachable Chlorides:**

**Fire:** RockTech 400 is non-combustible when tested according to international standards e.g. ASTM E-136-82, DIN 4102, BS476 Pt4-1970, ISO 1182, AS 1530.1.

**Moisture Resistance Water:** RockTech 400 is highly water repellent, non hygroscopic and non capillary. The water repellency is in accordance with BS 2972 (total immersion) is  $\geq 96\%$  (vol.). Roxul Rox-Foil 300 water repellency in accordance with AGI Q 136 is  $\geq 99\%$  (vol)

**Moisture Resistance Vapour Diffusion:** Water vapour diffusion resistance factor of  $\mu = 1.3$ . This low value means that water can pass through and cool without condensing.

**Moisture Resistance:** ROCKWOOL stone wool absorbs very little water from the air. Tests show at relative humidity of 90% for 30 days the hygroscopic water content is around .004 volume per cent. The water vapour absorption (vapor sorption) in accordance with ASTM C1104 is  $\leq 0.02\%$  (vol).  
**Absorption from the air:**

**Moisture Resistance Capillarity:** ROCKWOOL stone wool fibres and fibre coating, repels water and prevents capillarity.

**Melting Point:** Melting point of ROCKWOOL stone wool is over 1000°C (1800°F)

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**Specific Heat:** ROCKWOOL stone specific heat factor is 0.84 kJ/kg per degree centigrade.

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**Calorific Value:** ROCKWOOL stone wool has a low organic matter content giving a low calorific value of around 600 kJ/kg.

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**Biological Properties:** ROCKWOOL stone wool contains no nutrients and therefore provides no basis for growth of fungi, moulds or bacteria, nor does it attract insects, rodents or vermin.

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**Acoustic Properties:** RockTech 400 stone wool base material when measured according to ASTM C423-90 at a thickness of 50 mm gives the following sound absorption coefficients:-

H <sub>z</sub> Coefficient	125	250	400	500	800	1000	2000	4000	NRC
	0.54	0.81	1.06	1.10	1.15	1.10	1.03	1.01	1.03

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**Durability:** ROCKWOOL stone wool has been proven in services for over 50 years in all types of exposure and as such will give effective protection for the lifetime of the equipment they insulate.

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**Compatibility:** ROCKWOOL stone wool is compatible with all materials which it is likely to come into contact in normal industrial and building applications.

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**Environment:** ROCKWOOL stone wool presents a very effective ecological profile in all elements of manufacture, recycling, use, service life and energy efficiency of material. No CFC's or HCFC's are used in its manufacture.

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**HEALTH & SAFETY**

RockTech 400 Blanket is **NOT CLASSIFIED** as **HAZARDOUS** according to **NOHSC** criteria as a consequence of the following events and conclusions about the health effects of long term occupation exposure to mineral wool insulation products.

- Over 50 years of extensive health research on ROCKWOOL products in Europe has resulted in the scientific conclusion that there are no long term health problems from using rock (stone) wool.
- In March 1995 the UK Health and Safety Executive concluded that rock (stone) wool should not be classified as a potential carcinogen.
- Under note Q of the National Occupational health and Safety Commission (NOHSC) publication "List of Designated Hazardous Substances" (NOHSC; 1005-1999) the classification of NON-CARCINOGENIC is to apply.
- Under the European Union Criteria set out in 67/548/EEC a classification of CARC, Cat O applies, ie; "Not classifiable for carcinogenicity."
- Under World Health Organisation (WHO) and its Monographs Programme of the International Agency for Research on Cancer (IARC) it has been concluded that, "rock (stone) wool are now considered not classifiable as to carcinogenicity to humans (Group 3)",

It is recommended that for the handling and installation of ROCKWOOL stone wool the internationally recognised Safety Data Sheet be followed. These are available from Australasian Insulation Supplies Pty Ltd.

**Technical Advice and Thermal Calculation Service:**

Heat transfer calculation for ROCKWOOL RockTech 400 insulation systems in thermal design is readily available. AIS technical advisers are ready to give help and advice on any matter connected with insulation or products manufactured by ROCKWOOL®

For further information and technical advice on insulation contact: