



## ROCKAL WIRED BLANKET

WB70-WB80-WB100-WB120-WB140-WB200

### DESCRIPTION:

*ROCKAL wired blanket Products are produced from molten mineral basalt rock spun to fine Fibers and formed by stitching with galvanized steel wires to hexagonal galvanized wire mesh.*

*ROCKAL wired blankets are high density and excellent thermal and acoustical insulation product Which comply with the requirement of ASTM C-592-80 CLASS 1*

### RECOMMENDED APPLICATIONS:

*as thermal and acoustical insulation for heavy industrial*

*Applications where severe condition of heat and vibrations due to high velocities are involved . Also used for large pipes , Flanges , Valves , Vessels , Boilers , Ovens , Chimney walls and furnaces and it's ideal for wrapping large curved surfaces and structures .*

### AVAILABLE PRODUCTS:

Product Name	Dimension		Density kg/m <sup>3</sup> Rang (30 To 56 )	Thickness (mm)	Thermal Conductivity W/mk @ 10 °C
	Length (m)	Width (m)			
ROCKAL HDB 70	3 TO 5	1	70	50 to 120	0.036 TO 0.04
ROCKAL LDB 80			80		
ROCKAL LDB 100			100		

### NOTE:

*Any other sizes can be produced upon special order up to 200 KG/M3.*


### FACING:

*ROCKAL WIRED BLANKETS are produced with 25 MM (1 INCH) opening galvanized hexagonal wire Mesh  $\phi=0.7$  MM on one side .*

*Wire mesh adds strength to the material and also forms an excellent key for normal surface finishing material special order for wire mesh facing on both sides and for stainless steel wire mesh  $\phi=0.7$  MM .*

## THERMAL CONDUCTIVITY:

(0.33 - 0.035) W/M K@ 10 °C

MEAN TEMPERATURE (°C)	THERMAL CONDUCTIVITY W/MK 		
	70 KG/M3	80 KG/M3	100 KG/M3
50	0.039	0.038	0.038
100	0.046	0.045	0.044
150	0.056	0.055	0.052
200	0.067	0.065	0.066
250	0.080	0.077	0.072
300	0.096	0.092	0.085
350	0.114	0.109	0.099
400	0.134	0.128	0.118



## INSTALLATION GUIDELINES

### ASSEMBLY:

*Cut the wired mat length . so that the mat fits the pipe with slight pre-stressing . the closing joints must be staggered at an angle of at least 30 degrees to each other . the closing joint of the mats (LENGTHWISE AND CIRCULAR) must be wired together using steel wire (MIN 0.5 MM) or secured with mat hooks . stainless steel pipes and pipes with a temperature of > 350 °C should preferably be insulated with ROCKAL BLANKET in which both the mesh and the stitching wire is stainless steel . if the mats are assembled in multiple layers , both the lengthwise and circular joints must be staggered (MASONRY BOND )*

### SUPPORT CONSTRUCTION:

*Given the limited pressure resistance of wired mats , in most cases a support is required for the board cladding . as a guideline , assume that a support is required every 3 to 4 meters.*

### FINISHING:

*the insulation should be finished with a metal (e.g. aluminum) cladding were necessary . expansion joints are provided to cater for expansion of the pipes. both the lengthwise and circular joints are fastened with sheet –metal screws: hard aluminum or stainless steel 1/2". 8/meter. close the expansion joints with a steel tensioning wire. connections to mountings, head and end caps ect .*





### TECHNICAL PROPERTIES:

PROPERTY	VALUE	PRODUCT COMPLIANCE
SERVICE TEMP.(HOT SIDE) ROCKWOOL MELTING TEMP. OUTER FACING LIMITING TEMP.	750 °C 1150 °C	ASTM C 411 EN 14706
FIRE CLASSIFICATION FLAME SPREAD INDEX SMOKE DEVELOPED	NON- COMBUSTIBLE < 10 0	ASTM E 136, BS 476 P , 4, DIN 4120, IMO RESOLUTION A 4729 (XII) ASTM E 84 ASTM E 84
MOISTURE SORPTION	< 1 % ( BY WEIGHT , WATER REPELLANT NON HYGROSCOPIC NON CAPILLARY NO EFFECT ON ITS STABILITY	ASTM C 1104
CORROSION RESISTANCE SOLUBLE CHLORIDES	PH 7 OR SLIGHTLY ALKALINE 6 PPM	ASTM C 871 , ASTM C 692-77 (CORROSION TEST ) ASTM C 871-77 (CHEMICAL TEST )
FUNGI RESISTANCE	DOES NOT ENCOURAGE FUNGI GROWTH	(ASTM C -665)
NOISE REDUCTION COEFFICIENT (NRC)	0.95-1.10	ASTM C 423-90A BS-EN ISO 354: 2003
ASBESTOS CONTENT	DOES NOT CONTAIN : AMPHIBOLE { CA2 MG3(OH)2 SIB O22} NOR SERPENTINE ASBESTOS {MG3 S12 (OH)4 O5}	
ENVIRONMENT	CFC AND HCFC FREE	
EXPANSION AND CONTRACTION	COMPLETELY STABLE	

### FIRE INSULATION:

ROCKAL WIRED BLANKET are fire proof , the following figures indicate the thickness of wired mat application between two flat steel surfaces with reference to the iso curves

DENSITY	RECOMMENDED THICKNESS (MM)			
	30 min	60 min	90 min	120 min
70	50	100	140	190
80	50	90	120	160
100	50	80	110	130

### ACOUSTIC ABSORPTION:

IN SABINE UNITS A S . (ISO , R-354 STANDARD)

**DENSITY 70 KG/M3**

FREQUENCY HZ	125	250	500	1000	2000	4000	NRC
50	0.17	0.52	0.90	0.96	0.97	0.90	0.83
60	0.30	0.67	0.95	0.99	0.99	0.97	0.90
70	0.40	0.79	0.99	0.03	1.04	0.99	0.96
80	0.48	0.87	1.02	1.02	0.99	0.99	0.97

**DENSITY 100 KG/M3**

FREQUENCY HZ	125	250	500	1000	2000	4000	NRC
50	0.22	0.62	0.90	0.90	0.89	0.95	0.82
60	0.32	0.73	0.83	0.91	0.96	0.97	0.88
70	0.42	0.82	0.90	0.91	0.98	0.98	0.91
80	0.51	0.83	0.93	0.93	0.98	0.98	0.92

### PACKING:

Each roll packed in polyethylene bag protected from UV light rays and fixed with a sticker

