

X S I S T E C H - Technical Data

Rigid & Soft Graphite Felt

Product Description :

The Insulation is a randomly stitched Pan or Rayon graphite fibre strand to form a needlemat insulation to the required thickness. PAN fiber material excellent thermal insulation is widely used in vacuum resistance furnace, induction furnace, sintering furnace. RAYON fibre has excellent high temperature thermal insulation, lower density, better thermal conductivity and provide thermal insulation and ablation.

Soft Graphite Felt

Description	Unit	Unit
Material	PAN - Graphite Felt	Rayon - Graphite Felt
Bulk Density	0.10– 0.12 g/cm ³	0.08 – 0.10 g/cm ³
Carbon Content	≥99 %	≥99 %
Ash	0.03 %	≤0.005 %
Tensile Strength	0.18 – 0.41 Mpa	0.1 Mpa
Thermal Conductivity 1150°C	0.08 W/mk	0.06-0.14 W/mk
Na	0.48 %	-
P	0 %	-
S	0.01 %	-
Length	13 m	16 - 18 m
Width	1.2 m	1 – 1.3 m
Thickness	5, 10, 12 mm	3, 5, 8, 10 mm
Compressive strength		5 - 8 N/cm ²
Processing Temp.		2500 C
Service Temp.		
Atmosphere	≤400 °C	≤400 °C
Vacuum	≤2200 °C	≤2200 °C
Inert Gas	≤3200 °C	≤3400 °C

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Rigid & Soft Graphite Felt

Product Description :

The Soft Graphite felt is further bonded to graphite paper and carbon cloth at high temperature purification treatment to form a rigid board. The material is superior in erosion resistance, thermal shock resistance, high thermal insulation performance and provide longer life span as thermal insulation system. It main application is used in vacuum high pressure air quenching furnace, low pressure fritting furnace, pressurisation vacuum sintering furnace and etc.

Rigid Graphite board can come with one sided or both sided foil as well as one sided CFC or both sided CFC, Multilayer Graphite felt and plain Graphite board.

Rigid Graphite Board

Description		SM-CF-B01		SM-CF-B02	
Rigid Graphite Felt		With foil	With CFC	With foil	With CFC
Material		Pan -CF	Pan -CF	Pan -CF	Pan -CF
Bulk Density	g/cm ³	0.22– 0.25	0.22– 0.28	0.18– 0.23	0.22– 0.25
Carbon Content	%	≥99	≥99	≥99.9	≥99.9
Ash	%	$\frac{e}{\lambda}$ 200	$\frac{e}{\lambda}$ 200	$\frac{e}{\lambda}$ 100	$\frac{e}{\lambda}$ 100
Folding Strength	Mpa	1.5 – 3.2	1.8 – 3.4	1.3 – 3.0	1.75 – 3.2
Flexural strength	Mpa	1.0 – 2.5	1.5 – 3.0	1.0 – 2.5	1.5 – 3.0
Thermal Conductivity (1150°C)	W/mk	0.20 – 0.30	0.20 – 0.30	0.15 – 0.20	0.15 – 0.20
Resistivity	Ω mm ² /m	55 - 60	65 - 70	35 - 40	40 -50
Length	m	1.5 - 1.7		1.5 - 1.7	
Width	m	1 – 1.25		1 – 1.25	
Thickness	mm	20 - 250		20 - 250	
Processing Temp.	C	2000		2000	
Service Temp.					
Atmosphere	°C	≤400		≤400	
Vacuum	°C	≤1800		≤2200	
Inert Gas	°C	≤3200		≤3400	

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