

PRODUCT INTRODUCTION



Sheets



Casings



Stiffeners

BG Glass Wool product is a class A non-combustible material made from high quality quartz sand, limestone and dolomite. These natural ores and some additives are melted and then centrifuged into fibers. The final products are shaped by thermal curing. BG Glass Wool has sheet type and casing pipes coated with glass cloth or aluminum foil fiber cloth. As a kind of thermal insulating material, it fits well with steel plate of marine cabin, and generally applicable in cabins with sealing panels, such as cabin inner surface, T flat steel, electric cable shelf, also applies to pipes with a medium temperature no higher than 250 °C, including frozen pipe, hot water pipe, steam pipe, oil tube and exposed pipe on open deck etc.

BG Glass Wool products have got the certifications of CCS, EC, ABS, NK.

TECHNICAL SPECIFICATIONS

Table 1 BG Glass Wool Technical Parameters

Items	Technical Requirements
Toxicity	Accord with GJB3881, GJB7497 etc.
Non-combustibility	Accord with IMO.2010FTPC Part1 requirement
Asbestos test	Accord with Hong Kong International Covention for the Safe and Environmentally Sound Recycling of Ships 2009.
Apparent density	20 ~ 80 kg/m ³
Moisture absorption rate	≤ 1.5 %
Residue content (Φ ≥ 0.25 mm)	≤ 1 %
Thermal Conductivity (25 °C)	0.035 ~ 0.039 W/m·K
Thermal shrinkage temperature	≥ 250 °C
Organic compound content	≤ 6 %
Noise reduction coefficient	≥ 0.8

PRODUCT SPECIFICATIONS

Table 2 BG Glass Wool Product Specifications

Scope	Class	Density/kg·m ⁻³	Dimension / mm			Coatings	Fixation	Areal Density/ kg·m ⁻²
			Length/T	Width/W	Thickness/T			
Bulk head or deck	Non-Combustible Thermal Insulation	20~80	600~1200	500~800	20~100	Glass cloth or Aluminum foil fiber cloth	Stud pins	Depending on density and thickness
				Stiffeners accord with the stiffener				

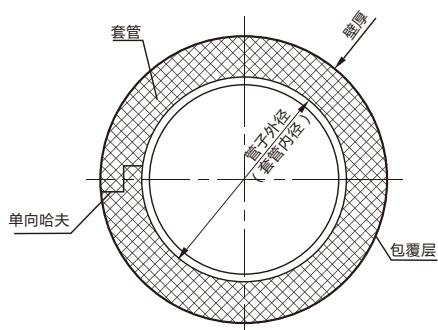
PRODUCT SPECIFICATIONS

Table 3 BG Glass Wool Pipe Specifications

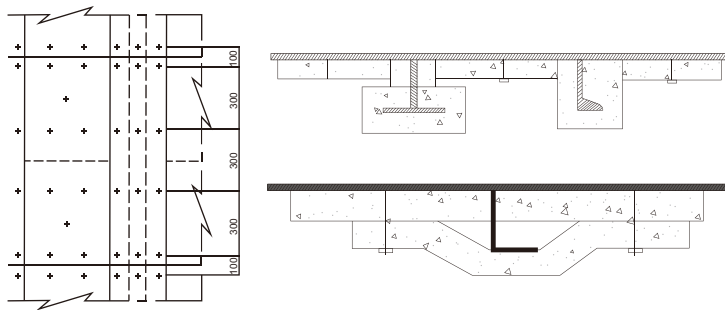
Scope	Density /kg·m ⁻³	Steel pipe external diameter/mm	Pipe Thickness / mm					Coatings	Contact quantity
			< 100 °C	100 °C	150 °C	200 °C	250 °C		
Different pipes	48	14	30	30	40	40	50	Glass cloth or aluminum foil	single contact or contact with two-sided rubberized tape
		22	30	30	40	40	50		
		27	30	30	40	40	50		
	55	34	30	40	40	50	60		
		42	30	40	40	50	60		
		64	40	50	50	60	70		
	80	60	40	50	50	60	70		
		76	40	50	60	70	80		
		89	40	50	60	70	80		
		100	50	60	70	80	90		

Note: special specifications, otherwise agreed.

STRUCTURES



Pipe Construction Model



Sheets and Stiffeners Construction Model

PRODUCT ADVANTAGE

BG Glass Wool is an inorganic non-combustible material. Its incombustibility complies with the requirements of (IMO rule) Act1 of Part 1 (2010 FTP rule). With a low density, the usage weight is distinctly reduced. With a one layer soft structure, the products can fit well with steel plates avoiding corrosion for preventing the condensation of water effectively. With good thermal insulating and sound absorbing performance, the product has stable quality and performance. With a usage history in shipbuilding industry for more than 30 years, it receives widespread attention and the high praise.

Glass Wool has passed the certificates of CCS, ABS, LR, NK, EC, etc. It's of high quality and safety performance.

PRODUCT INTRODUCTION



Sheets



Casings



Stiffeners

TG type Ceramic Wool product is made from high quality clay by melting, spraying into fibers and thermal curing processes. The main ingredients are Al_2O_3 , SiO_2 , Fe_2O_3 , K_2O , Na_2O , MgO etc. It can be coated with glass cloth or aluminum foil glass cloth according to the requests of clients. It can be shape into blocks, stiffeners and casings, mainly used as the insulating materials at cabin inner surfaces, stiffeners (T steels and ball steels), cable holders, and frozen pipes, hot water pipes, steam pipes, oil pipes, exposed pipes on open deck etc.

TG Ceramic Wool products have got the certifications of CCS, LR, NK, ABS, EC, BV and DNV.

TECHNICAL SPECIFICATIONS

Table 1 TG Ceramic Wool Technical Parameters

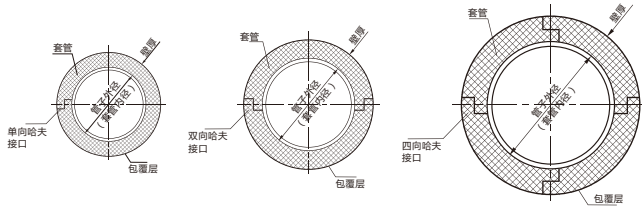
Items	Technical Requirements
Toxicity	Accord with GJB3881, GJB7497 etc.
Non-combustibility	Accord with IMO.2010FTPC Part1 requirement
Asbestos test	Accord with Hong Kong International Covention for the Safe and Environmentally Sound Recycling of Ships 2009.
Apparent Density / kg/m^3	80 ~200
Moisture Absorption Rate / %	≤ 5
Fiber Diameter / μm	≤ 4
Residue Content / % ($\Phi \geq 0.25$ mm)	≤ 12
Thermal Conductivity (25 °C) / W/m·K	0.035 ~ 0.038
Liner Heating Shrinkage Rate / %	1000 °C, 6 h: ≤ 4
Organic Compound Content / %	≤ 2.5
Sound Reduction Index / dB	A60 class bulkhead: 47; A60 class deck (25 mm): 45
Fire Separation Class	A60 class, accord with the requirements of IMO.2010FTPC Part3. Bulkhead: (20+20) mm, two-layer; 170 kg/m^3 ; Deck: 30 mm, one-layer; 170 kg/m^3 ; 25 mm, one-layer; 170 kg/m^3 ; (20+20) mm, two-layer; 170 kg/m^3 ;

PRODUCT SPECIFICATIONS

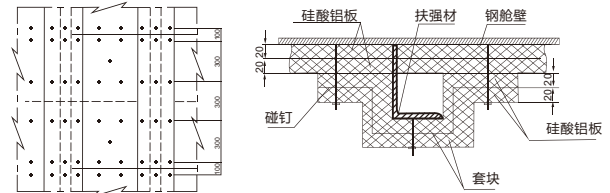
Table 2 TG Type Ceramic Wool Product Specifications

Scope	Fire Separation Class	Type	Density/ kg/m ³	Dimension / mm			Coatings	Fixation	Areal Density/ kg/m ²
				T	W	T			
Steel bulk head	A-60	DQ-TG/B-II	170	600~1000	500~800 Stiffeners according to the stiffener	20+20 two-layer;	Glass cloth or Aluminum foil glass cloth	Stud pins	6.8
Steel deck	A-60	DQ-TG/D-II	170		500~800 Stiffeners according to the stiffener	30 one-layer;			
Steel bulk head	A-60	DQ-TG/D-III	170	600~1000	500~800 Stiffeners according to the stiffener	25 one-layer;	Glass cloth or Aluminum foil glass cloth	Stud pins	3.4
Steel deck	A-60	DQ-TG/D-IV	170		500~800 Stiffeners according to the stiffener	20+20 two-layer;			
Bulk head, deck, pipes	incombustible	TG	80~200	According to customers' requirements.			Glass cloth or Aluminum foil glass cloth	/	/

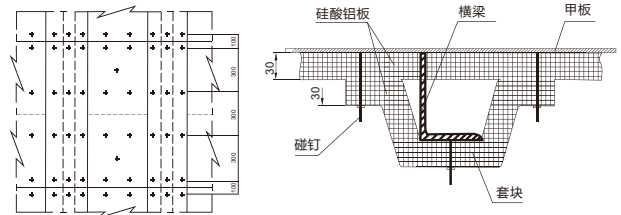
STRUCTURES



Pipe Construction Model



A60 Bulkhead(DQ-TG/B-II)typical Detail of TG Ceramic Wool



A60 Deck(DQ-TG/D-II)typical Detail of TG Ceramic Wool

PRODUCT ADVANTAGE

TG Ceramic Wool has been used in civil ships as A60 class fireproof material for more than 20 years. It has gotten the certifications of CCS, EC, LR, ABS, DNV, NK, BV, etc. It's of high security, and economical. As A60 class material, it offers enough time to escape from emergencies. To adapt to the usage in ship, 5 mm hard layer is applied to get a hard and smooth surface without affecting the fireproof performance.

PRODUCT INTRODUCTION



Blocks



Panels



Stiffeners

DJS Super Light Poly Spathic Fire-proof Product is a class A non-combustible composite material with a two-layer structure, hard layer and soft layer. The soft layer is made from several heat-resisting crystal ores contain aluminum oxide (Al_2O_3), silicon dioxide (SiO_2), zirconia (ZrO_2). The ores are made into fibers through melting, fiber drawing geometry and needle-weaving processes. The soft layer produced by the new process is resin, residue and dust free, and has no stimulus on human skin like irritation and allergies.

DJS product is coated with glass cloth outside of the hard layer and soft layer complex by PSJ type flame-retardant white adhesive. The soft layer is the inner layer which can fit well with steel plates and prevent the condensation of water. It offers excellent fireproof performance, good anticorrosion, sound absorption and thermal insulation. The hard layer is the hard and smooth surface with good toughness, impact resistance and compression. As for its flat appearance, putty is unnecessary. DJS is a multifunctional fireproof material for shipbuilding with good safety.

DJS product, as a kind of multifunctional inner decorative material with fireproof, thermal insulation, sound insulation and absorption functions, is mainly applicable to compartments of outer plates of hull, cabin panels and ceilings, also applicable to T steels, ball steels, cable holds etc., can be used as thermal insulation for ventilation ducts and exhaust pipes.

DJS product has gotten the certificates of CCS and EC.

TECHNICAL SPECIFICATIONS

Table 1 DJS Super Light Poly Spathic Fire-proof Products Technical Parameters

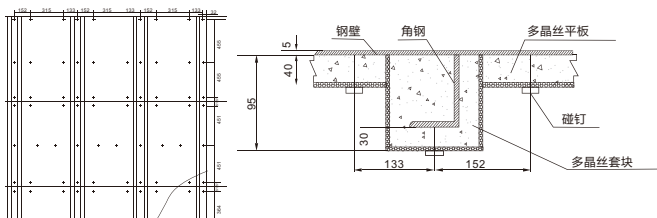
Items	Technical Requirements
Toxicity	Accord with GJB3881, GJB7497 etc.
Non-combustibility	Accord with IMO.2010FTPC Part1 requirement
Asbestos test	Accord with Hong Kong International Covention for the Safe and Environmentally Sound Recycling of Ships 2009.
Apparent Density / kg/m^3	100 ~ 120
Moisture Absorption Rate / %	≤ 0.5
Residue Content / % ($\Phi \geq 0.25$ mm)	≤ 6
Thermal Conductivity/ $W/m \cdot K$	25 °C, ≤ 0.032 ; 500 °C, ≤ 0.127 ;
Thermal Shrinkage Temperature / %	1400
Heating Permanent Linear Change Rate / %	≤ 4 (1400 °C, 8h)
Organic Compound Content / %	≤ 2.5
Sound Reduction Index / dB	A60 class bulkhead: 47; A60 class deck: 46
Fire Separation Class	A60 class, accord with the requirements of IMO.2010FTPC Part3. Bulkhead: 40 mm, one-layer; 100 kg/m^3 ; Deck: 30 mm, one-layer; 116 kg/m^3

PRODUCT SPECIFICATIONS

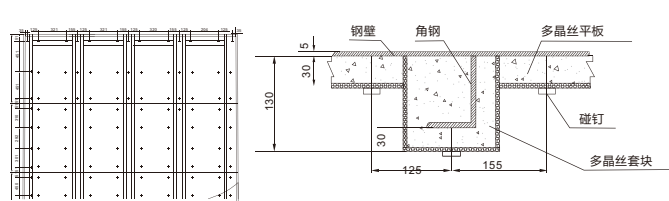
Table 2 DJS Super Light Poly Spathic Fire-proof Products Specifications

Scope	Fire Separation Class	Type	Density/ kg/m ³	Dimension / mm			Coatings	Fixation
				T	W	T		
Steel bulkhead	A60	DQ-DJS/B-V	100	600~1000	800	40(hard layer included)	Glass cloth or Aluminum foil glass cloth	Stud pins
					700			
					600			
					500			
Steel deck	A60	DQ-DJS/D-V	116	600~1000	800	30(hard layer included)	Glass cloth or Aluminum foil glass cloth	Stud pins
					700			
					600			
					500			
Stiffener	A60	DJS	116	600	according to the stiffener	30(hard layer included)	Glass cloth or Aluminum foil glass cloth	Stud pins

STRUCTURES



A60 Bulkhead(DQ-DJS/B-VI)
typical Detail of DJS Products



A60 Deck(DQ-DJS/D-VI)typical
Detail of DJS Products

PRODUCT ADVANTAGE

- Low density (100 ~ 120kg/m³).

The areal weight is about 3.42 to 4.52 kilograms per square meter, reduced about 2.4 kilograms per square meter compared with A60 class ceramic wool with a density of 170kg/m³. The reduced weight can be used to increase fireproof walls so as to improve the level of fire safety of the ship.

- New needle-waving process.

The soft layer made by the new process is organic free, shows low toxicity, smoke density and thermal conductivity. The performance is more stable, the service life is longer.

- One-layer structure.

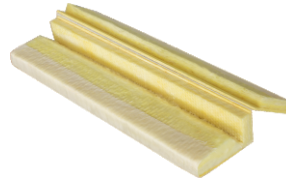
The total thickness is 40 mm including 5 mm hard layer, easy to install. Construction cycle is shortened distinctly.

So far, DJS product has been widely used in all kinds of ships. With a good fireproof performance, low density, the sailing speed of ships will increase as the ship weights are lowered. Easy to install, labor intensity is lowered, work efficiency is increased. DJS is a good choice for all kinds of ships and vessels.

PRODUCT INTRODUCTION



Blocks



Stiffeners

Naval mineral wool fireproof heat-insulating product (PS-2) is a class A non-combustible material with a two-layer structure, hard layer and soft layer. The soft layer is made from several nature ores through melting, centrifuging and curing processes. The hard layer of high strength consists of multiple inorganic mineral fibers and cured by thermal curing. To get final PS-2 products, glass cloth will be coated outside after the hard layer and soft layer being combined, then dry. The soft layer is the inner layer which can fit well with steel plates and prevent condensation of water. It offers good anticorrosion, sound absorption and thermal insulation. The hard layer is a hard and smooth surface with good toughness, impact resistance and compression. As for its flat appearance, putty is unnecessary. PS-2 is a multifunctional insulating material for shipbuilding with good safety.

PS-2 has been approved by Navy Equipment Department and got the third prize in scientific and technological achievements of the Chinese people's Liberation Army Navy. PS-2 products have got the certifications of CCS, EC and ABS.

TECHNICAL SPECIFICATIONS

Table 1 Technical Parameters

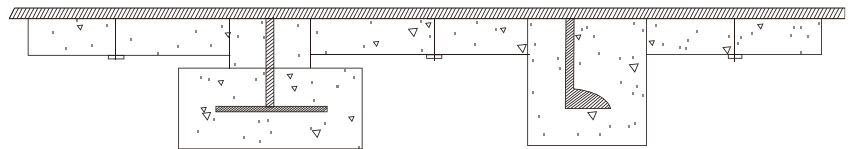
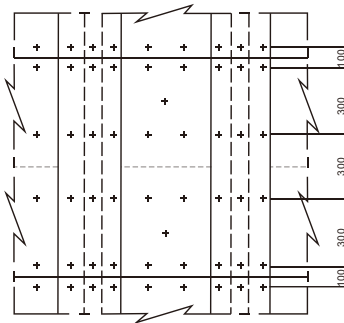
Items	Technical Requirements	
Apparent density / kg/m ³	Blocks: 40 ~ 80; Stiffeners: 80	
Thermal Conductivity / W/m·K	≤ 0.036	
Compressibility / kPa	≥ 97	
Organic compound content / %	≤ 6	
Tensile strength / kPa	≥ 60	
Maximum Service temperature / °C	≥ 300	
Non-combustibility	Accord with IMO.2010FTPC Part1	
Toxicity (R.T.)	Accord with GJB7497.	
Smoke and toxicity at high temperature	Accord with IMO.2010FTPC Part2	
Combustion heat	Accord with ISO716FTPC-6	
Asbestos test	None	
Service time	20 years	
Appearance	With 5 millimeters hard layer	
Sound reduction index	21 (Spec: Thickness = 40 mm, Density = 60 kg/m ³)	Sound Insulating Mineral Wool
	29 (Spec: Thickness = 50 mm, Density = 80 kg/m ³)	
	32 (Spec: Thickness = 60 mm, Density = 90 kg/m ³)	
	32 (Spec: Thickness = 75 mm, Density = 100 kg/m ³)	

PRODUCT SPECIFICATIONS

Table 2 PS-2 Specifications

Scope	Class	Density/ kg/m ³	Dimension / mm			Coatings	Fixation	Areal Density/kg/m ²			
			T	W	T			T	Density/kg/m ²		
									45	60	80
Steel bulk head or deck	incombustible	Blocks:40~80; Stiffeners:80	400~1000	800	20~100	Glass cloth	Stud pins	40	1.8	2.4	3.2
				700				50	2.0	3.0	4.0
				600				60	2.7	3.6	4.8
				500				70	3.2	4.1	5.6
				Stiffeners accord with the stiffener				80	3.6	4.8	6.4

STRUCTURES

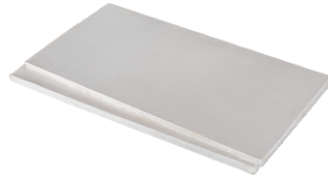


Blocks and Stiffeners Construction Model

PRODUCT ADVANTAGE

- PS-2 is an inorganic non-combustible composite material. It's a multifunctional material with anticorrosion, thermal insulation, sound insulation and absorption, decorative functions. Its service life can be as long as 15 years.
- PS-2 is of high security and more environmental friendly. As inorganic non-combustible material, there's no dripping and decomposition at high temperature. Meanwhile, stud pins are used to fix the materials instead of adhesives.
- PS-2 shows low areal density of about 2.52 to 4.62 kilogram per square meter after being installed.
- Easy to install. Installation process with stud pins is mature and easy to implement. Adhesive and puttying is removed. Adjusting the nut cap to make sure soft layer fits well with steel plate.
- Low comprehensive cost. Construction costs are reduced by removing adhesives and simplifying construction processes.

PRODUCT INTRODUCTION



Panels



Stiffeners

Environment-friendly thermal insulating decorative plate (PS-3) is a class A non-combustible composite material with a two-layer structure, hard layer and soft layer. The soft layer with longer and softer fibers is made from several natural ores through raw material matching, melting, fiber drawing geometry and needle-weaving processes. The soft layer produced through the new process is resin, residue and dust free, and has no stimulus on human skin like irritation and allergies. The hard layer of high strength consists of multiple inorganic mineral fibers and cured by thermal curing. PS-3 is coated with glass cloth outside of the hard layer and soft layer complex by PSJ type flame-retardant white adhesive. The soft layer is the inner layer which can fit well with steel plates and prevent the condensation of water. It offers good anticorrosion, sound absorption and thermal insulation. The hard layer is the hard and smooth surface with good toughness, impact resistance and compression. As for its flat appearance, putty is unnecessary. PS-3 is a multifunctional environmental friendly insulating material for shipbuilding with good safety.

PS-3, as a kind of multifunctional inner decorative material with thermal insulation, sound insulation and absorption functions, is mainly applicable to the compartments of outer plates of the hull, cabin panels and ceilings, also applicable to T steels, ball steels, cable holds etc. The soft layer can be used as thermal insulation for ventilation ducts and pipes with a service temperature no high than 300 °C.

PS-3 has been approved by Navy Equipment Department and got the certifications of CCS.

TECHNICAL SPECIFICATIONS

Table 1 PS-3 Technical Parameters

Items	Technical Requirements
Toxicity	Accord with GJB3881, GJB7497 etc.
Non-combustibility	Accord with IMO.2010FTPC Part1
Asbestos test	Accord with Hong Kong International Covention for the Safe and Environmentally Sound Recycling of Ships 2009.
Apparent Density / kg/m ³	Panels: 95 ± 10 (Thickness = 30 mm) 110 ± 10 (Thickness = 20 mm) 120 ± 10 (Thickness = 15 mm) Stiffeners: 110 ± 10 (Thickness = 15 mm)
Moisture Absorption Rate / %	≤ 0.1
Residue Content / % (Φ ≥ 0.25mm)	0
Thermal Conductivity / W/m•K	25 °C, ≤ 0.030
Thermal Shrinkage Temperature / °C	≥ 670
Organic Compound Content / %	≤ 2.1
Sound Reduction Index / dB	17 (Spec: Thickness = 15 mm, Density = 110)

PRODUCT INTRODUCTION



Blocks



Casings

YG Rock Wool product is made from high quality basalts by melting, spinning into fibers and thermal curing processes. The main Ingredients are Al_2O_3 , SiO_2 , Fe_2O_3 , CaO , MgO etc. It can be coated with glass cloth or aluminum foil fiber cloth according to the requests of clients. It can be shape into blocks, stiffeners and casings, mainly used as the insulating materials at cabin inner surfaces, stiffeners (T steels and ball steels), cable holders, and frozen pipes, hot water pipes, steam pipes, oil pipes, exposed pipes on open deck etc.

YG Rock Wool products have got the certifications of CCS, ABS and EC.

TECHNICAL SPECIFICATIONS

Table 1 YG Rock Wool Technical Parameters

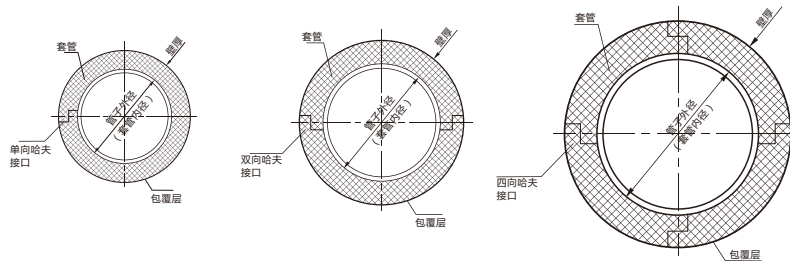
Items	Technical Requirements
Toxicity	Accord with GJB3881, GJB7497 etc.
Non-combustibility	Accord with IMO.2010FTPC Part1 requirements
Asbestos test	Accord with Hong Kong International Covention for the Safe and Environmentally Sound Recycling of Ships 2009.
Apparent Density / kg/m^3	40 ~ 150
Moisture Absorption Rate / %	≤ 5
Fiber Diameter / μm	≤ 7
Residue Content / % ($\Phi \geq 0.25 mm$)	≤ 12
Thermal Conductivity / $W/m\cdot K$	25 °C, 0.037~0.040
Thermal Shrinkage Temperature / °C	650
Organic Compound Content / %	≤ 3

PRODUCT SPECIFICATIONS

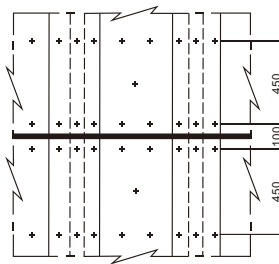
Table 2 YG Rock Wool Product Specifications

Scope	Class	Density/ kg/m ³	Dimension / mm			Coatings	Fixation	Areal Density/ kg/m ²
			T	W	T			
Steel bulk head or deck	incombustible	100	1000	800	25	Glass cloth or Aluminum foil glass cloth	Stud pins: 12~16/m ² ;	T=25: 2.5; T=50: 5.5; T=75: 8.5; T=100: 10.5;
				700				
				600				
				500				
				Stiffeners according to the stiffener				

STRUCTURES



Pipe Construction Model



Insulation Construction Model

PRODUCT ADVANTAGE

YG Rock Wool has been used in civil ships as thermal insulating material for more than 20 years. It has gotten the certifications of CCS, EC, LR, ABS, and NK. It's of high security, and economical. As A60 class material, it offers enough time to escape from emergencies.

PRODUCT INTRODUCTION

TG-1 type highly purified Ceramic Wool product is a class A incombustible material. It is mainly made from aluminum oxide, silicon oxide which can stand high temperature. The minerals are melted and spun into fibers. In the process, a new needle weaving technology replaces the traditional thermal curing technology. As a result, the product is resin free, and has no stimulus on human skin like irritation and allergies.

TG-1 ceramic wool products can fit well with steel plates and prevent the condensation of water as it is soft and tender. It offers excellent fireproof performance, good anticorrosion, sound absorption and thermal insulation. Meanwhile, it is an environmental friendly multifunctional material.

TG-1 ceramic wool products, as a kind of multifunctional inner decorative material with fireproof, thermal insulation, sound insulation and absorption functions, are mainly applicable to cabin panels and ceilings without cover plates, also applicable to T steels, ball steels, cable holds etc., can be used as thermal insulation for ventilation ducts and exhaust pipes.



Blankets

TG-1 type ceramic wool products have passed the approval of CCS, LR, EC and DNV.

TECHNICAL SPECIFICATIONS

Table 1 TG-1 Type Highly Purified Ceramic Wool Product Technical Parameters

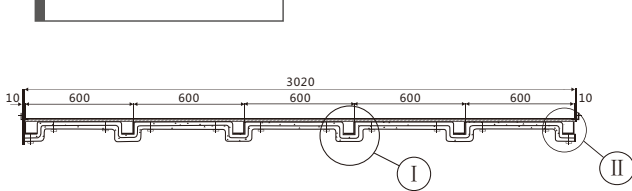
Items	Technical Requirements
Incombustibility	Accord with IMO.2010FTPC Part1 requirement
Asbestos test	Accord with Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships 2009.
Apparent Density / kg / m ³	110 ± 10
Moisture Absorption Rate / %	≤ 5
Fiber Diameter / um	≤ 4
Residue Content / % (Φ ≥ 0.25 mm)	≤ 10
Thermal Conductivity / W / m•K	25 °C, 0.034; 500 °C, 0.136;
Heating Permanent Linear Change Rate / %	1000 °C, 6h, ≤ 4
Thermal Shrinkage Temperature / %	1260
Organic Compound Content / %	≤ 0.5
Fire Separation Class	A60 class, accord with the requirements of IMO.2010FTPC Part3. Bulkhead: (20+20) mm, two-layer; 110 kg/m ³ ; Deck: 30 mm, one-layer; 110 kg/m ³

PRODUCT SPECIFICATIONS

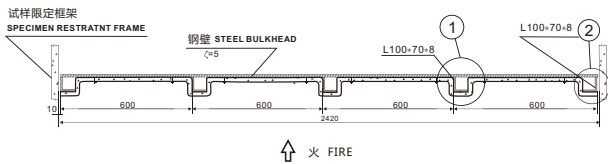
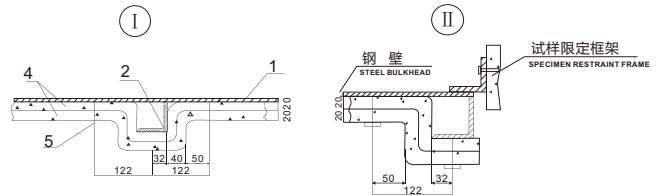
Table 2 TG-1 Type Highly Purified Ceramic Wool Product Specifications

Scope	Fire Separation Class	Type	Density/ kg/m ³	Dimension / mm			Coatings	Fixation
				L	W	T		
Steel bulkhead (steel exposed to fire)	A60	DQ-TG-1/B-V	110±10	≤ 7200	610	20	Glass cloth or Aluminum foil glass cloth	Stud pins
steel deck (materials exposed to fire)	A60	DQ-TG-1/D-V	110±10	≤ 6000	610	30	Glass cloth or Aluminum foil glass cloth	Stud pins
Thermal Insulation	Non-combustibility	TG-1	90~150	Depand	610	20~50	Glass cloth or Aluminum foil glass cloth	Stud pins for bulkhead, glass cloth for pipes;

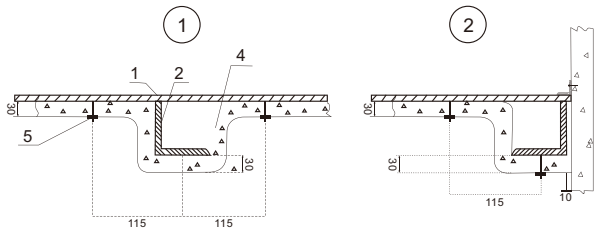
STRUCTURES



A60 Bulkhead typical Detail of TG-1 Ceramic Wool



A60 Deck typical Detail of TG-1 Ceramic Wool



PRODUCT ADVANTAGE

- Low density (110 ± 10 kg/m³).
The areal weight is about 3.42 to 4.52 kilograms per square meter, reduced about 2.4 kilograms per square meter compared with A60 class ceramic wool with a density of 170 kg/m³.
- New needle-waving process.
The soft layer made by the new process is organic free, shows low toxicity, smoke density and thermal conductivity. The performance is more stable, the service life is longer.
- Ease to apply
The blanket is applied continuously.

**PRODUCT
INTRODUCTION**

HYG Heat Resisting Rock Wool product is made from high quality basalts by melting, spinning into fibers and thermal curing processes. The main Ingredients are Al_2O_3 , SiO_2 , Fe_2O_3 , CaO , MgO etc. It can be coated with glass cloth or aluminum foil fiber cloth according to the requests of clients. It's mainly used as the insulating and fireproof materials at cabin inner surfaces, stiffeners (T steels and ball steels) etc..



Blocks

HYG type Heat Resisting Rock Wool products have got the certificates of CCS, ABS and EC.

**TECHNICAL
SPECIFICATIONS**

Table 1 HYG Heat Resisting Rock Wool Products Technical Parameters

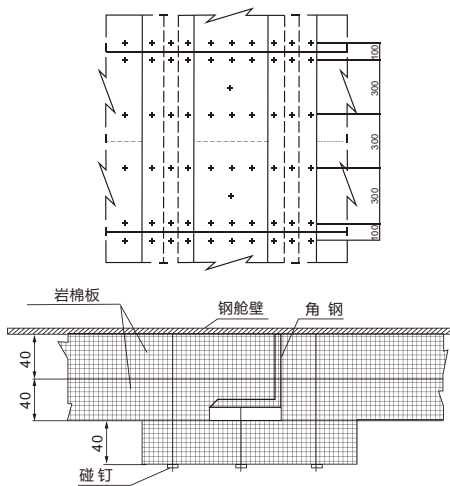
Items	Technical Requirements
Incombustibility	Accord with IMO.2010FTPC Part1 requirement
Asbestos test	Accord with Hong Kong International Covention for the Safe and Environmentally Sound Recycling of Ships 2009.
Apparent Density / kg/m^3	120
Moisture Absorption Rate / %	≤ 5
Fiber Diameter/ μm	≤ 7
Residue Content / %($\Phi \geq 0.25$ mm)	≤ 12
Thermal Conductivity / $W/m \cdot K$	25 °C , 0.037~0.040
Organic Compound Content %	≤ 3
Fire Separation Class	A60 class, accord with the requirements of IMO.2010FTPC Part3. Bulkhead: (40+40) mm, two-layer; 120 kg/m^3 ; Deck: 50 mm, one-layer; 120 kg/m^3 ;

PRODUCT SPECIFICATIONS

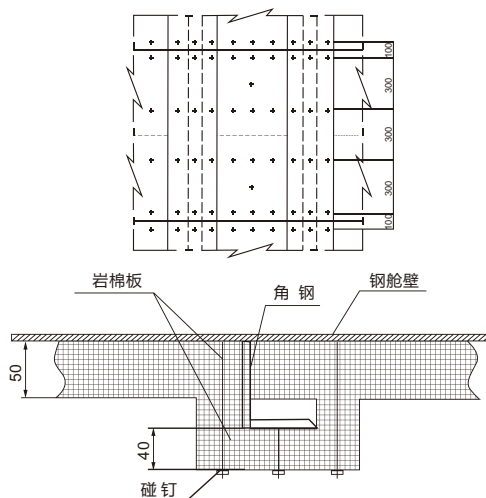
Table 2 HYG Rock Wool Product Specifications

Scope	Fire separation class	Class	Density/ kg/m ³	Dimension / mm			Coatings	Fixation	Areal Density/ kg/m ²
				T	W	T			
Steel Bulk head	A60	DQ-HYG/B-VII	120	600~1000	800	40+40 two-layer; 40 mm, one layer on stiffener;	Glass cloth or Aluminum foil glass cloth	Stud pins	9.6
					700				
					600				
					500				
					According to stiffener				
Steel Deck	A60	DQ-HYG/D-VII	120	600~1000	800	50 mm one-layer; 40 mm for stiffener;	Glass cloth or Aluminum foil glass cloth	Stud pins	6
					700				
					600				
					500				
					According to stiffener				

STRUCTURES



A60 Bulkhead (DQ-HYG/B-VII) typical Detail of HYG Rock Wool



A60 Deck (DQ-HYG/D-VI) typical Detail of HYG Rock Wool

PRODUCT ADVANTAGE

HYG Rock Wool has been used in civil ships as A60 class fire-proof material for more than 20 years. It has gotten the certifications of CCS, EC, LR, ABS, and NK. It's of high security, and economical. As A60 class material, it offers enough time to escape from emergencies.