

TASHIKA CONTINUOUS CERAMIC FIBER

FEATURES

- Superior flexibility
- Corrosion resistant
- Does not absorb moisture
- Excellent thermal resistance
- Good thermal insulation properties
- Good electrical insulation properties

DESCRIPTION

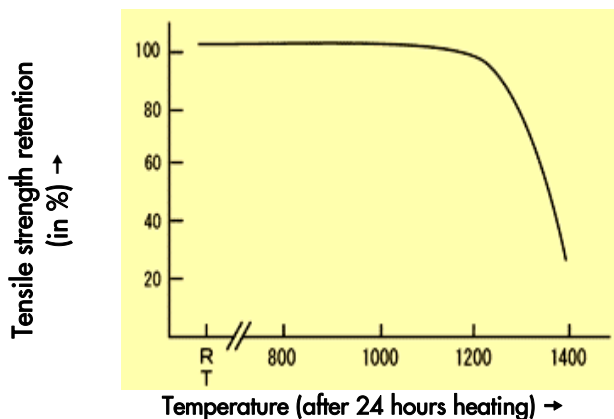
TASHIKA continuous ceramic fiber is a Boron-free, Alumina-Silica polycrystal made up of several thousand fine filaments that gives it excellent flexibility and allow it to be readily transformed into various textile forms such as thread, rope, woven cloth, tape and braided sleeve without the aid of any other organic fiber.

Continuous ceramic fiber has properties such as high tensile strength and modulus, excellent thermal resistance and outstanding electrical insulation.

It has a wide range of applications in high temperature operating environment.

TYPICAL PHYSICAL PROPERTIES (Type F)

1. Colour	White
2. Fiber form	Continuous
3. Filament diameter	7 microns
4. Chemical composition	Al ₂ O ₃ (72%) + SiO ₂ (28%)
5. Crystal type	Gamma Al ₂ O ₃
6. Density	2.9 g/cm ₃
7. Tensile strength	200 Kgs/mm ₂
8. Tensile modulus	17,000 Kgs/mm ₂
9. Thermal resistance	Up to 1,250°C as per the tensile strength retention percentage Vs increasing temperature curve shown below:



CERAMIC FIBER YARN



CERAMIC FIBER CLOTH



CERAMIC FIBER TAPE



CERAMIC FIBER SLEEVE

Ceramic fiber yarn is available in following three combinations of chemical composition:

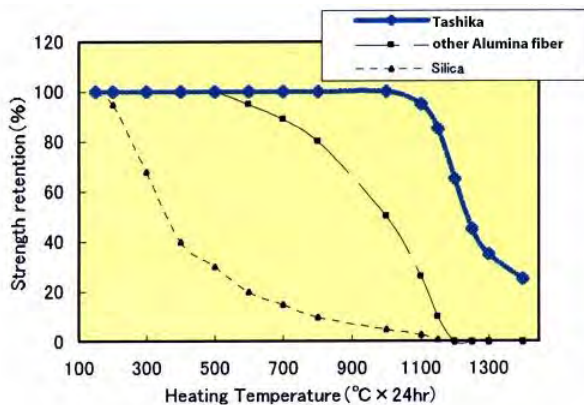
- Type G: Alumina (60%) and Silica (40%) for max. application temperature 1,200°C
- Type F: Alumina (72%) and Silica (28%) for max. application temperature 1,250°C
- Type E: Alumina (80%) and Silica (20%) for max. application temperature: 1,300°C

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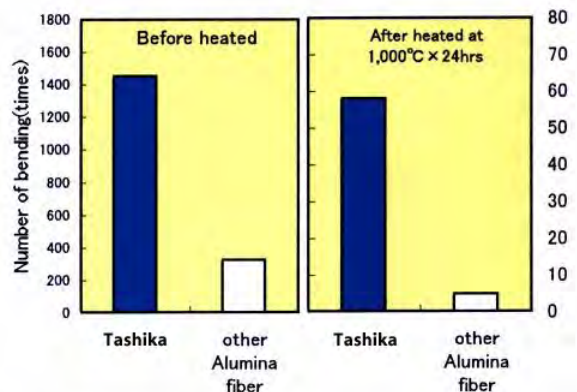
APPLICATIONS

1. Thermal insulation rings (disks and collars) for diffusion furnaces used in the semi-conductor manufacturing process.
2. Furnace linings.
3. Heat-Shielding curtain.
4. Thermal insulation seals or packing materials.
5. Thermal insulation coverings for thermocouple cables and wires.
6. Roller covers for tempered glass plate manufacturing.
7. Filters for molten aluminium or other metals.
8. Spacers for the heat treatment of metal or other materials.
9. Abrasive for plastic wetstone.
10. Insulators around generator and aircraft/rocket engines.
11. Catalyst carries.
12. Electrical and thermal insulators for diesel particulate filter systems (DPF).
13. Others.

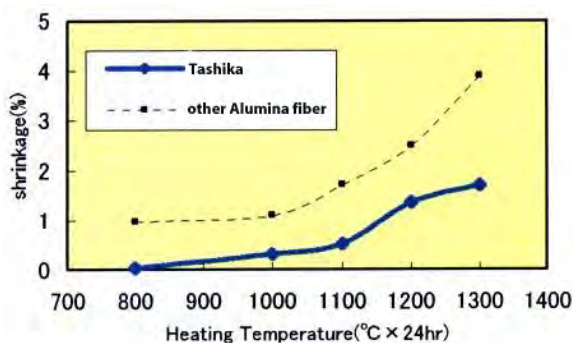
CHARTS



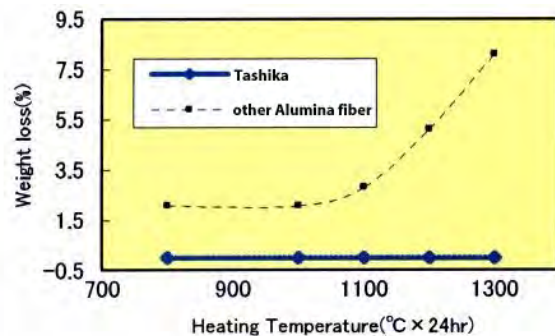
Strength retention after exposure to high temperatures



Bending resistance (Evaluated in accordance with JIS8115)



Liner shrinkage after exposure to high temperatures



Weight loss after exposure to high temperatures

STANDARD WOVEN FABRIC PRODUCTS

Type	Weave	Yield of yarn(tex)	Yarn Count (per inch)		Weight (g/m ²)	Thickness (mm)	
			Warp	Fill		JIS	ASTM
3025-T	Twill	200	30	25	440	0.35	0.55
1111-P	Plain(mesh)	620	11	11	550	0.68	0.87
0909-P	Plain(mesh)	200	9	9	145	0.21	0.41
2525-P	Plain	67	25	25	135	0.15	0.21
2626-P	Plain	133	26	26	280	0.21	0.31
2220-S	Satin	400	22	20	670	0.61	0.97
4018-D	Double twill	400	40	18	940	0.80	1.35
5537-S	Satin	67	55	37	265	0.20	0.25
3030-P	Plain	33	30	30	80	0.08	0.10

* Applied standard to measure thickness (JIS: JIS R3420, ASTM: ASTM D1777).

* Standard woven fabric products are all 1m width and 30m/roll.

STANDARD SEWING THREAD PRODUCTS

Type	Yield (tex)	F.D* (μm∅)	Twist (T/m)	Quantity (g/bobbin)	Length (m/bobbin)	O.D* (mm∅)	NOTE
T-5760D	620	7	125	400	645	1.0	Hand sewing
CT-2560D	330	7	180	350	1,060	0.5	Machine sewing
CT-5120D	610	7	180	350	573	0.8	Machine sewing

STANDARD ROPE, CORD PRODUCTS

Type	Form	O.D* (mm∅)	Twist (T/m)	Weight (g/m)	Length (m/bobbin)	Quantity (g/bobbin)
RP-18	Twisted rope	2	100	3.8	130	500
CD-1	Braided cord	1	—	1.7	50	85
CD-2	Braided cord	2	—	3.7	50	185
CD-3	Braided cord	3	—	5.4	50	270

* Note : F.D=Filament diameter, O.D=Outside diameter

* Note : Out side diameter "O.D" mentioned in the tables are just for preliminary knowledge

STANDARD BRAIDED SLEEVING PRODUCTS

Type	Yield of yarn (tex)	I.D* (mm)	Weight (g/m)	Picks	Quantity(m/roll)	
SV-1-XP	33	0.3	0.7	16	50	
SV-1-SP	67	0.5	1.3	16	50	
SV-1	133	1	2.4	16	50	
SV-2	200	2	3.7	16	50	
SV-3		3	8.3	16	50	
SV-6		6	12	24	50	
SV-10		10	20	40	ab.25	
SV-12		12	24	48	ab.25	
SV-16		16	38	64	ab.25	
SV-20		20	44	84	ab.25	
SV-25		25	70	84	ab.50	
SV-32		32	108	64	ab.50	
SV-40		40	91	96	ab.40	
SV-50		50	124	96	ab.50	
SV-60		60	182	96	ab.50	
SV-70		400	70	218	96	ab.50
SV-85			85	333	96	ab.40
SV-95	95		390	96	ab.30	

*I.D=Inside Diameter

* Please contact us if you have special requests or inquiries regarding length or quantity.

Note: Please contact us if you need an item which is not listed in the above product list.

STANDARD WOVEN TAPE PRODUCTS

Type	Weave	Yield of yarn(tex)	Yarn Count (per inch)		Weight (g/m ²)	Thickness(mm)		Width (mm)
			Warp	Fill		JIS	ASTM	
TP-25S	Twill	200	30	22	11	0.32	0.53	25
TP-25D	Twill	620	48	11	37	1.20	1.87	25
TP-30S	Plain	200	30	22	13	0.32	0.45	30
TP-40S	Twill	400	24	19	29	0.50	0.83	40
TP-50S	Plain/Twill	200	30	22	22	0.32	0.45/0.53	50
TP-70S	Twill	200	30	22	30	0.32	0.53	70
TP-100S	Twill	200	30	22	43	0.32	0.53	100

* Standard woven tape products are all 30m/roll.(except TP-40S,100S)

* Applied standard to measure thickness(JIS:JIS R3420,ASTM:ASTM D1777).

CUSTOMIZED PRODUCTS

CERAMIC FIBER FELT

Ceramic fiber felt is produced from chopped long fibers containing alumina (72%) and silica (28%) providing overwhelmingly higher heat resistance as compared to felt containing heat-resistant organic fibers. It also has advantage of being more compact for air flow resistance. Ceramic felt less resistance to air flow can also be provided by parallel orientation of the fibers.



CHOPPED YARN

Cut into hopping sizes(0.1-60mm).
This is recommended for application of reinforcement.



COLORED YARN

Colored with inorganic pigment - Red, Blue, and Black
Color is sustained even at elevated temperature

HIGH PURITY CERAMIC FIBER YARN

Note: Please contact us if you have any requests or inquiries regarding the customized products.



DUE TO CONTINUOUS PRODUCT IMPROVEMENT, THE DESIGN AND TECHNICAL SPECIFICATIONS
ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

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