



CHUKOH FLO™

Plastic conveyer rollers/related parts
Chukoh Chemical Industries, Ltd.



About Chukoh Chemical Industries

Since our establishment in 1963, we have founded a business rooted in the potential of fluoroplastic, and have since accumulated experience and technological capabilities as a comprehensive processor of high-performance resins. For injection molding products such as plastic rollers for transportation, we produce various super engineering plastics that are used across a myriad of fields such as semiconductors, automobiles, industrial equipment, and chemistry.

Reasons to choose Chukoh Chemical Industries

Wide variety
of resins

Standard
products sold
without mold
charges

Available from
one piece
*Partly made-to-order

Products can be
freely mixed and
matched, with all
products
connecting to
each other.

Quick delivery

You can choose
resin and shape

— I N D E X —

1 Conveyor rollers

2 Transport rings

3 Spur gear

4 Helical gears

5 Spacer

6 Stopper

7 Bearing

8 Characteristics of
each type of resin

Sales offices/ factories



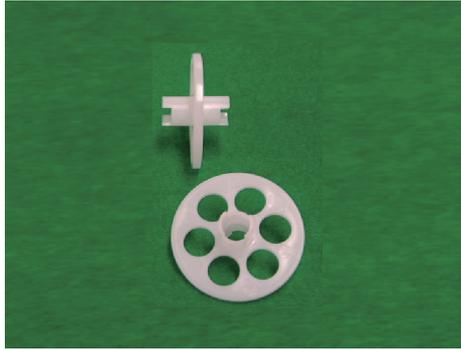
■ Utsunomiya factory



Conveyor rollers: CR



Spoke type



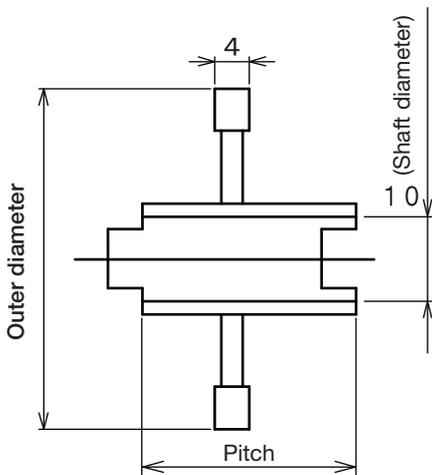
Circle-holed type



Circle-holed type

PE + TPO (Elastomer) Integrated Molding

Composition



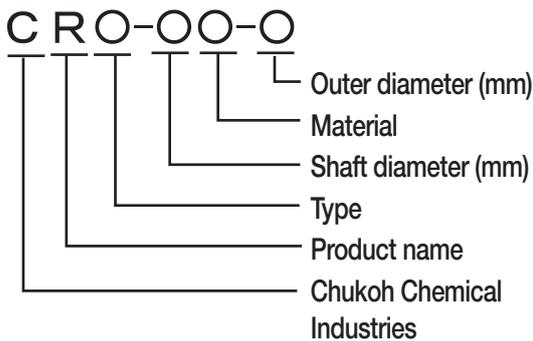
Spoke type

Part number	Material	Shaft diameter	Outer diameter	Color	Pitch (mm)
CRS-10N-40	Nylon 46	φ 10	φ 40	Beige	25
CRS-10N-50	Nylon 46	φ 10	φ 50	Beige	25
CRS-10PP-20	Polypropylene	φ 10	φ 20	White	16
CRS-10PP-32	Polypropylene	φ 10	φ 32	White	16
CRS-10PE-40	Polyethylene	φ 10	φ 40	White	25
CRS-10PE-50	Polyethylene	φ 10	φ 50	White	25
CRS-10PK-32	PEEK	φ 10	φ 32	Light brown	16
CRS-10PK-40	PEEK	φ 10	φ 40	Light brown	25
CRS-10PK-50	PEEK	φ 10	φ 50	Light brown	25
CRS-10PFA-32	PFA	φ 10	φ 32	Semitransparent	25

Spoke type (Integrated molding)

Part number	Material	Shaft diameter	Outer diameter	Color	Pitch (mm)
CRS-10PEM-40	PE + TPO	φ 10	φ 40	White	25
CRS-10PEM-50	PE + TPO	φ 10	φ 50	White	25

Part number



Circle-holed type

Part number	Material	Shaft diameter	Outer diameter	Color	Pitch (mm)
CRR-8PFA-40	PFA	φ 8	φ 40	Semitransparent	25
CRR-10PFA-40	PFA	φ 10	φ 40	Semitransparent	25
CRR-10PFA-50	PFA	φ 10	φ 50	Semitransparent	25

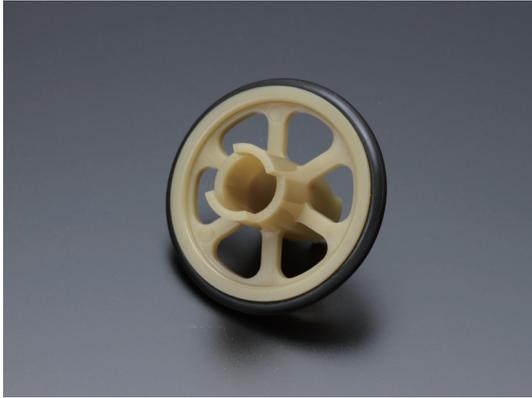
Circle-holed type (Integrated molding)

Part number	Material	Shaft diameter	Outer diameter	Color	Pitch (mm)
CRR-10PEM-40	PE + TPO	φ 10	φ 40	White	25

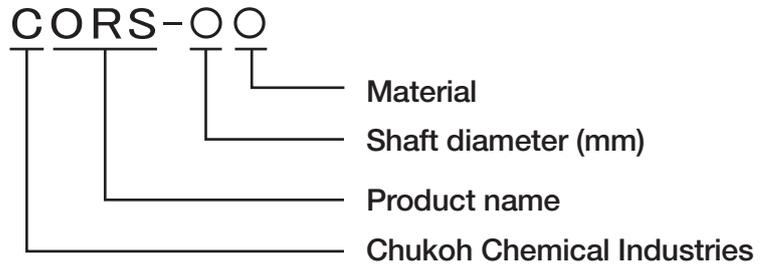
Example applications for each type of resin

Material	Application
Nylon 46	For drying machines
PFA	Chemical

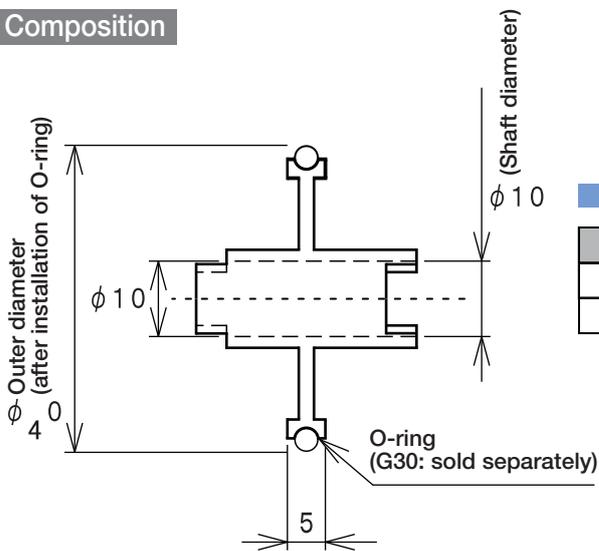
Transport rings: CORS



Part number



Composition



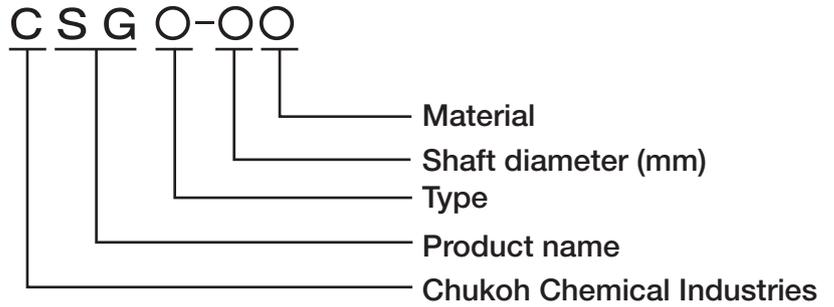
Plastic conveyor rings

Part number	Material	Shaft diameter	Outer diameter	Color
CORS-10N	Nylon 46	φ 10	φ 40	Beige
CORS-10PP	Polypropylene	φ 10	φ 40	White

Spur gear: CSG

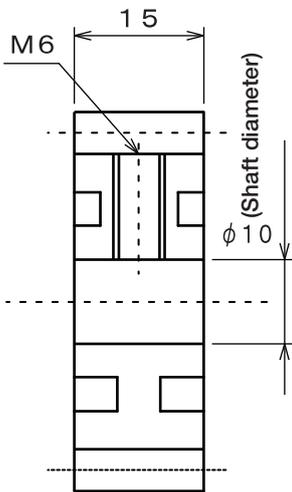


Part number



Composition

■ Type A/B spur gear



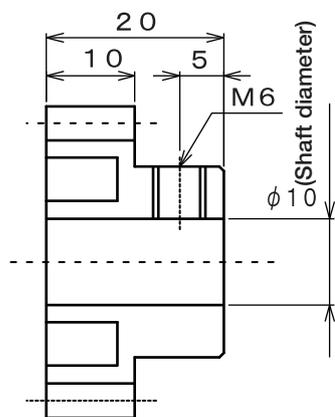
■ Type A

Part number	Material	Shaft diameter	Module	Number of cogs	Color
CSGA-10N	Nylon 46	φ 10	2.5	16	Beige
CSGA-10S	Special polyethylene with high slidability	φ 10	2.5	16	Milky white
CSGA-10PK	PEEK	φ 10	2.5	16	Light brown
CSGA-10PKC	PEEK (Reinforced with carbon fiber)	φ 10	2.5	16	Black

■ Type B

Part number	Material	Shaft diameter	Module	Number of cogs	Color
CSGB-10N	Nylon 46	φ 10	2.5	20	Beige
CSGB-10S	Special polyethylene with high slidability	φ 10	2.5	20	Milky white
CSGB-10PK	PEEK	φ 10	2.5	20	Light brown
CSGB-10PKC	PEEK (Reinforced with carbon fiber)	φ 10	2.5	20	Black

■ Type C spur gear



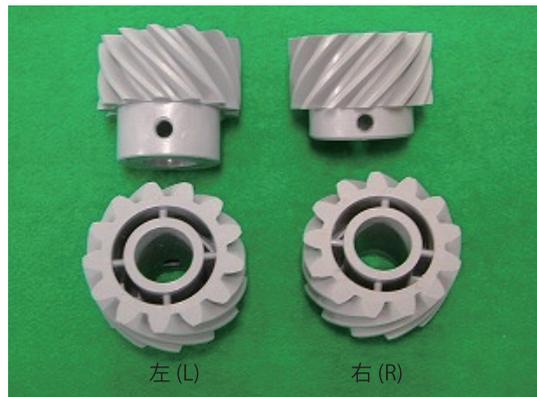
■ Type C

Part number	Material	Shaft diameter	Module	Number of cogs	Color
CSGC-10S	Special polyethylene with high slidability	φ 10	2	16	Milky white

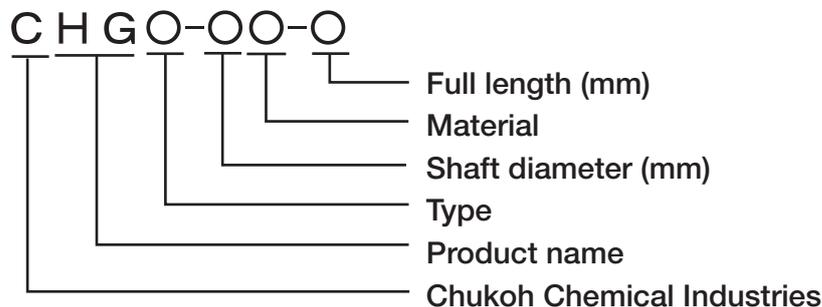
Example applications for each type of resin

Material	Application
Nylon 46	for drying machines
Special polyethylene with high slidability	High slidability
PEEK (Reinforced with carbon fiber)	Conductivity

Helical gears: CHG



Part number



Composition

■ Helix Angle: Right twist at an angle of 45° Modules: 2 Number of cogs: 13

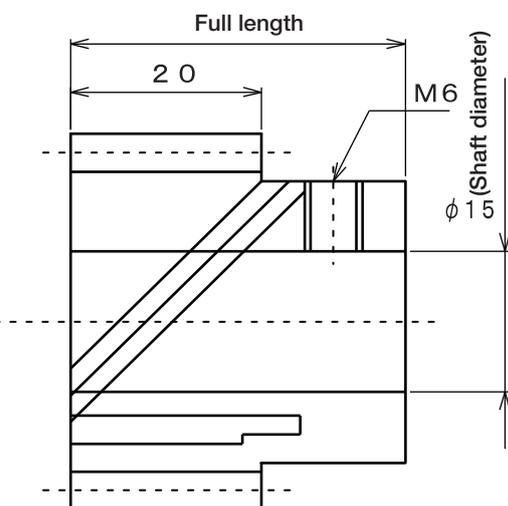
Part number	Material	Shaft diameter	Full length	Color
CHGR-10S-28	Special polyethylene with high slidability	φ 10	28	Milky white
CHGR-10S-35	Special polyethylene with high slidability	φ 10	35	Milky white
CHGR-10EE-35	ETFE	φ 10	35	White
CHGR-10PKC-28	PEEK (Reinforced with carbon fiber)	φ 10	28	Black
CHGR-15PKC-35	PEEK (Reinforced with carbon fiber)	φ 15	35	Black
CHGR-10N-28	Nylon 46	φ 10	28	Beige
CHGR-10N-35	Nylon 46	φ 10	35	Beige
CHGR-15N-28	Nylon 46	φ 15	28	Beige
CHGR-15N-35	Nylon 46	φ 15	35	Beige

■ Helix Angle: Left twist at an angle of 45° Modules: 2 Number of cogs: 13

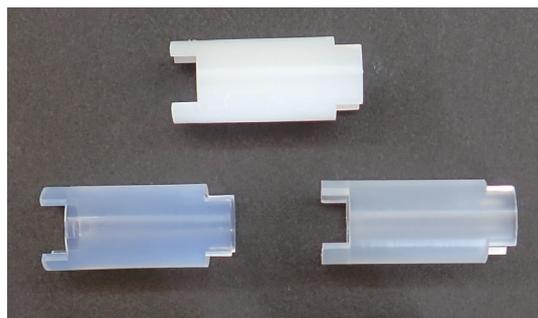
Part number	Material	Shaft diameter	Full length	Color
CHGL-10S-28	Special polyethylene with high slidability	φ 10	28	Milky white
CHGL-10S-35	Special polyethylene with high slidability	φ 10	35	Milky white
CHGL-10EE-35	ETFE	φ 10	35	White
CHGL-10PKC-28	PEEK (Reinforced with carbon fiber)	φ 10	28	Black
CHGL-15PKC-35	PEEK (Reinforced with carbon fiber)	φ 15	35	Black
CHGL-10N-28	Nylon 46	φ 10	28	Beige
CHGL-10N-35	Nylon 46	φ 10	35	Beige
CHGL-15N-28	Nylon 46	φ 15	28	Beige
CHGL-15N-35	Nylon 46	φ 15	35	Beige

Example applications for each type of resin

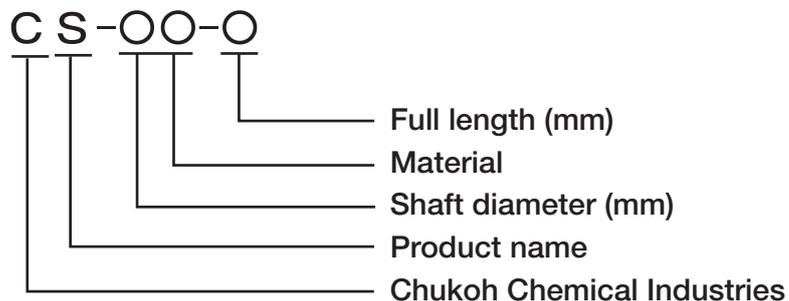
Material	Application
Special polyethylene with high slidability	High slidability
PEEK (Reinforced with carbon fiber)	Conductivity



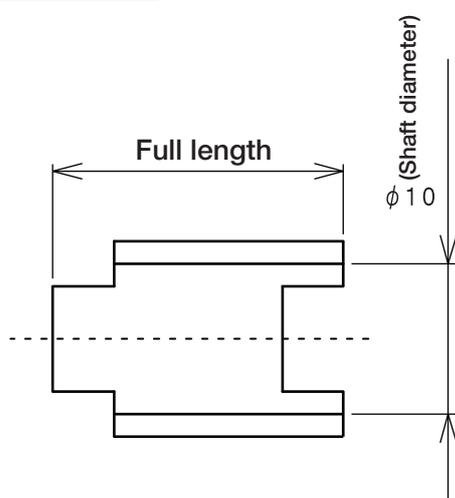
Spacer: CS



Part number



Composition



Type with a full length of 19mm

Roller pitch changed from 25mm to 40mm

Type with a full length of 24mm

Roller pitch changed from 25mm to 45mm

Type with a full length of 29mm

Roller pitch changed from 25mm to 50mm

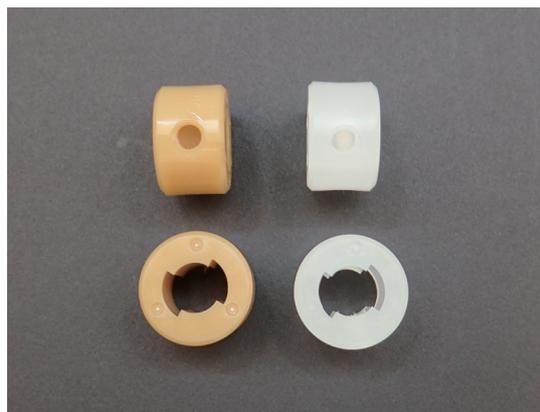
■ Spacer

Part number	Material	Shaft diameter	Full length	Color
CS-10N-19	Nylon 46	φ 10	19	Beige
CS-10N-24	Nylon 46	φ 10	24	Beige
CS-10N-29	Nylon 46	φ 10	29	Beige
CS-10PE-19	Polyethylene	φ 10	19	White
CS-10PE-24	Polyethylene	φ 10	24	White
CS-10PE-29	Polyethylene	φ 10	29	White
CS-10PP-19	Polypropylene	φ 10	19	White
CS-10PP-24	Polypropylene	φ 10	24	White
CS-10PP-29	Polypropylene	φ 10	29	White
CS-10PFA-19	PFA	φ 10	19	Semitransparent
CS-10PFA-24	PFA	φ 10	24	Semitransparent
CS-10PFA-29	PFA	φ 10	29	Semitransparent
CS-10PK-19	PEEK	φ 10	19	Light brown
CS-10PK-24	PEEK	φ 10	24	Light brown
CS-10PK-29	PEEK	φ 10	29	Light brown

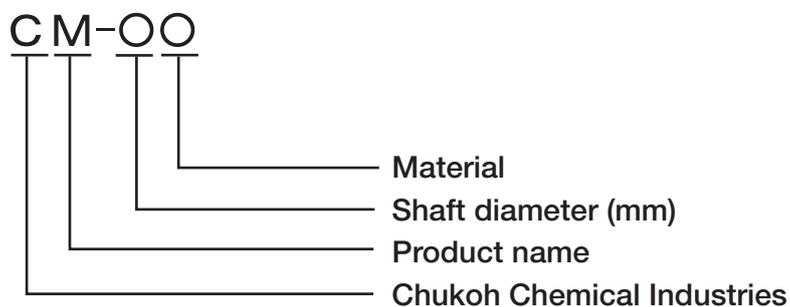
Example applications for each type of resin

Material	Application
Nylon 46	For drying machines
PFA	Chemical resistance

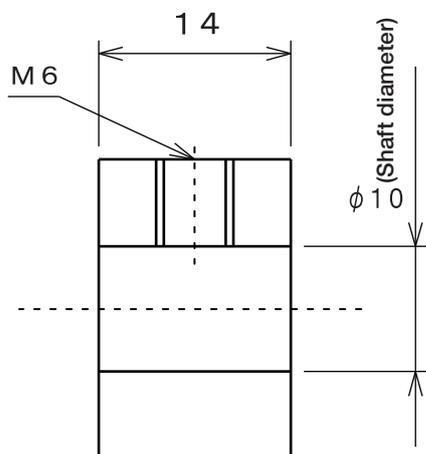
Stopper: CM



Part number



Composition



Spacer

Part number	Material	Shaft diameter	Color
CM-10N	Nylon 46	$\phi 10$	Beige
CM-10PP	Polypropylene	$\phi 10$	White
CM-10PK	PEEK	$\phi 10$	Light Brown
CM-10PKC	PEEK (Reinforced with carbon fiber)	$\phi 10$	Black

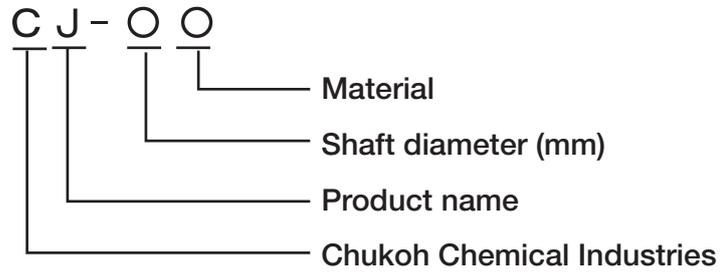
Example applications for each type of resin

Material	Application
Nylon 46	For drying machines

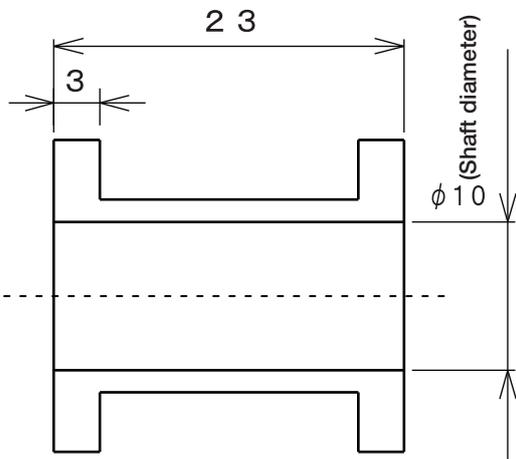
Bearing: CJ



Part number



Composition



■ Bearing

Part number	Material	Shaft diameter	Color
CJ-10PE	Polyethylene	φ 10	White
CJ-10N	Nylon 46	φ 10	Beige

Characteristics of each type of resin

PE	Polyethylene is a general-purpose resin that is used in a wide range of applications such as films. It has low specific gravity, making it suitable for production of light products. It also boasts excellent impact resistance, and maintains flexibility even at low temperatures. There are high-density polyethylene and low-density polyethylene, with high-density polyethylene having excellent rigidity.
PP	Polypropylene, like polyethylene, is a typical general-purpose plastic. Its properties are similar to those of polyethylene, but its specific gravity is even smaller, meaning it has the lowest specific gravity among general-purpose plastics. It has excellent mechanical strength, especially bending fatigue resistance.
TPO	TPO is a thermoplastic elastomer made by mixing and dispersing EPDM or EPM rubber in polyolefin resin (polyethylene/polypropylene). It is a material that can be injection molded yet also has rubber elasticity. Its disadvantage being that it swells in non-polar solvents such as aromatic organic solvents and mineral oils
Nylon 46	Nylon is generally an engineering plastic excellent in mechanical strength and heat resistance, and nylon 46 has high heat resistance, even among nylons, and is highly adaptable to high temperature environments. It also has good chemical resistance but, as with all other nylons, has poor acid resistance.
PFA	PFA is a Fluororesin with excellent properties equivalent to polytetrafluoroethylene (PTFE). It is also resistant to almost all chemicals, is non-stick, has low friction, and has very high heat resistance. Moreover, it is flexible with high crack resistance. However, under high loads, caution against deformation is required.
PEEK	PEEK is a super engineering plastic with extremely high heat resistance and excellent strength at high temperatures. It has good wear properties and very good chemical resistance, except for sulfuric acid.

			High density polyethylene	Polypropylene	Nylon 46	Perfluoroalkoxy alkane	Polyether ether ketone
			HDPE	PP	PA46	PFA	PEEK
Melting point	°C	Measured by Differential Scanning Calorimeter	135	ND	295	310	340
Density	g/cm ³	D 792	-	-	1.18	2.12 - 2.17	1.3
		JIS K6921-2 JIS K6922-2	0.96	0.9	-	-	-
Tensile strength	MPa	D 638	ND	ND	100	25 - 35	97
Tensile yield stress	MPa	JIS K6921-2 JIS K6922-2	27	20	-	-	-
Tensile elongation	%	D 638	-	-	>40	300 - 350	>60
		JIS K6921-2 JIS K6922-2	>400	>400	-	-	-
Bending strength	MPa	D 790	-	-	120	ND	170
Flexural modulus	GPa	D 790	-	-	2.9	0.54 - 0.64	4.2
	MPa	JIS K6921-2 JIS K6922-2	1000	500	-	-	-
Deflection temperature under load	°C (1.81MPa)	D 648	-	-	160	47	152
			-	-	275	74	
	°C (0.45MPa)	JIS K6921-2 JIS K6922-2	ND	60	-	-	-
Coefficient of linear expansion	10 ⁻⁵ /°C	D 696	ND	ND	TD: 8/MD: 10	12	4.7
Volume resistance	Ω.cm	IEC 93	ND	ND	10 ¹⁵	>10 ¹⁸	4.9
Rate of water consumption	% (24hr)	D 570	ND	ND	2.3	0.01	0.5

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Website address www.chukoh.com/

Corporate site



Japanese



English



Chinese



Thai

Caution

- Do not use for medical applications or other usages involving a contact with human body.
- Observe the related laws and regulations for disposal. Do not incinerate in any case.
- Do not use at the temperature exceeding the maximum service temperature.
- Please read the catalogue and product safety data sheet (SDS) on our website to -maintain the original functions of product and ensure safe use.