

A solid plastic sliding material comprising polytetrafluoroethylene (PTFE) resin mixed with a special filler.

This special filler gives DAIFORCE A excellent friction and wear-resistance characteristics at a light weight.

Thanks for excellent chemical-resistance properties, DAIFORCE A can be used with confidence in all kinds of lubricants as well as in corrosive liquids or seawater. Demonstrates suitable performance for a wide range of applications, including office automation equipment, industrial robots, automotive parts, and food packaging equipment.

Features

1. An excellent bearing that combines the superior surface characteristics of fluoropolymers with mechanical strength.
2. The special filler material does not include metals or other hard substances and does not cause excessive wear to aluminum alloys or other soft materials.
3. Suitable for use in both dry and wet conditions.
4. Excellent chemical resistance thanks to the inert nature of fluoropolymers.
5. Special filler contains no materials that are hazardous to humans, making this product suitable for use in food processing applications. Conforms with Japan's Food Sanitation Act as well as standards and regulations for food products and additives.
6. Suitable for use in a wide range of ambient temperatures from -200 to +280°C.

Material : DFA01

PTFE mixed with a special filler

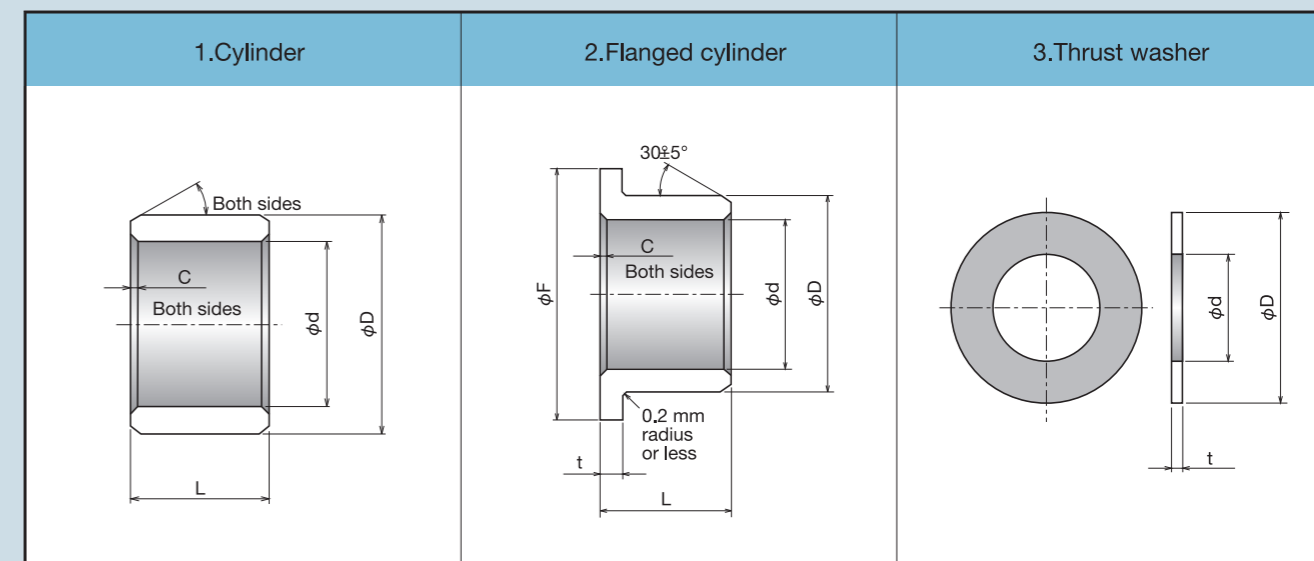
Material Characteristics (typical values)

Specific gravity	Tensile strength (MPa)	Elongation (%)	Hardness (durometer D-scale)	Coefficient of expansion between 25 and 150°C (×10 ⁻⁵ /°C)
1.90 – 2.02	9 or more	100 or more	55 – 65	11

Tribological Characteristics (typical values)

Material properties	Coefficient of friction (μ)	Maximum permissible load (MPa)	Maximum permissible speed (m/min)	Operating temperature range (°C)
DFA01	0.04 – 0.18	6.9	100	-200 – 280

Geometry



DAIFORCE A bearing dimensions

(in mm)

Cylindrical bushing

Name	Dimensional range
Inner diameter (d)	3- to 50-mm dia.
Outer diameter (D)	6- to 60-mm dia.
Length (L)	5 to 50 mm

Flanged cylindrical bushing

Name	Dimensional range
Inner diameter (d)	3- to 50-mm dia.
Outer diameter (D)	6- to 60-mm dia.
Outer flange diameter (F)	9- to 70-mm dia.
Length (L)	5 to 60 mm

Thrust washer

Name	Dimensional range
Inner diameter (d)	6 to 50 mm
Outer diameter (D)	12 to 80 mm
Thickness (t)	0.5 to 1.0 mm





A solid plastic sliding material comprising polytetrafluoroethylene (PTFE) mixed with glass fiber reinforcement.

This is a new product with a combination of glass-fiber reinforcing and special filler that gives high strength and excellent tribological properties compared with conventional PTFE sliding materials. Demonstrates suitable performance for a wide range of applications, including textile machinery, office automation equipment, machine tools, automotive parts, conveyor equipment, and food processing equipment.

Features

1. Glass-fiber reinforced PTFE offers high strength with no stick slip.
2. Offers excellent friction and wear-resistance characteristics.
3. Special filler contains no materials that are hazardous to humans, making this product suitable for use in food processing applications. Conforms with Japan's Food Sanitation Act as well as standards and regulations for food products and additives.
4. Suitable for use in a wide range of ambient temperatures from -200 to +280°C.

Material : DFG01

Glass-fiber-reinforced PTFE mixed with a special filler

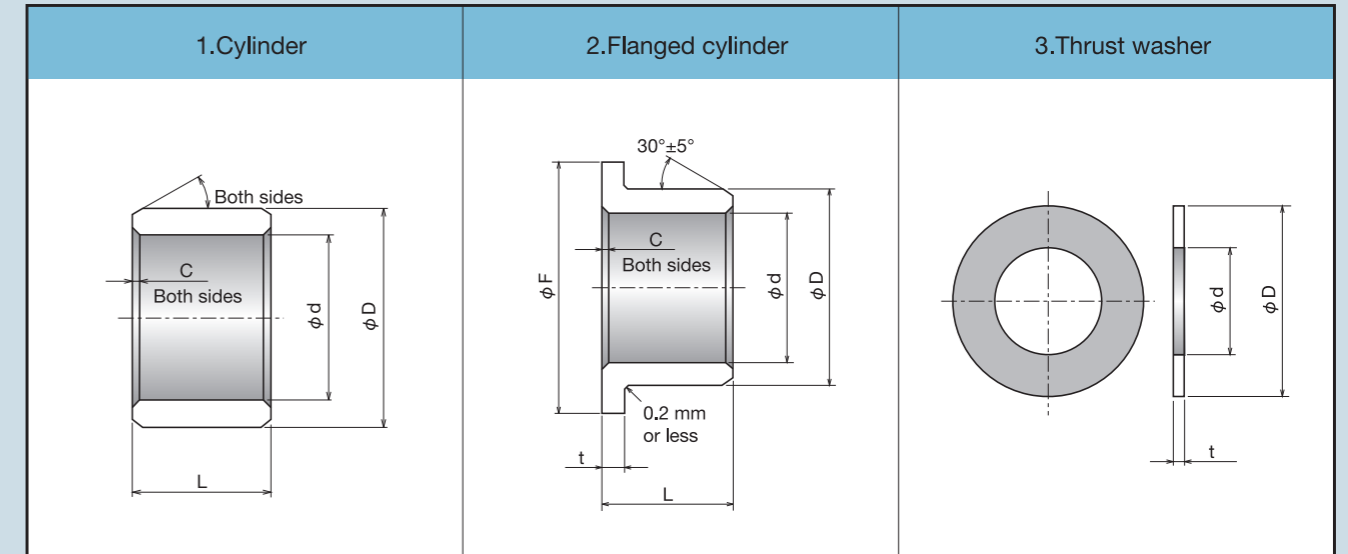
Material Characteristics (typical values)

Specific gravity	Tensile strength (MPa)	Elongation (%)	Hardness (durometer D-scale)	Coefficient of expansion between 25 and 200°C ($\times 10^{-5}/^{\circ}\text{C}$)
2.10 – 2.30	9	80 or more	55 – 65	6 – 13

Sliding Characteristics (typical values)

Material properties	Coefficient of friction (μ)	Maximum permissible load (MPa)	Maximum permissible speed (m/min)	Operating temperature range (°C)
DFG01	0.05 – 0.2	6.9	60	-200 – 280

Geometry



DAIFORCE G bearing dimensions

(in mm)

Cylindrical bushing

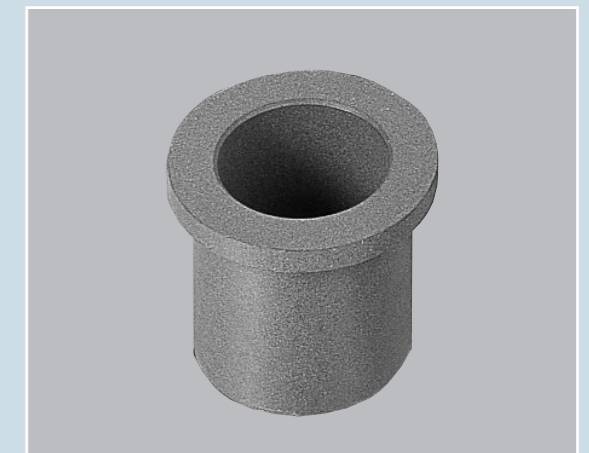
Name	Dimensional range
Inner diameter (d)	3- to 50-mm dia.
Outer diameter (D)	6- to 60-mm dia.
Length (L)	5 to 50 mm

Flanged cylindrical bushing

Name	Dimensional range
Inner diameter (d)	3- to 50-mm dia.
Outer diameter (D)	6- to 60-mm dia.
Outer flange diameter (F)	9- to 70-mm dia.
Length (L)	5 to 60 mm

Thrust washer

Name	Dimensional range
Inner diameter (d)	6 to 50 mm
Outer diameter (D)	12 to 80 mm
Thickness (t)	0.5 to 1.0 mm



APPLICATION

MANUFACTURE

Polymer MATERIALS AND SIZE

PLANNING

CORPORATE PROFILE

SPECIFICATION SHEET

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