



FLUOROCARBON

**Fluoroglide® Slide Bearings
Pipe Supports & Skidways**



World leading innovations in
fluoropolymer processing

The science of managing very heavy load movement requires special understanding. Utilising our range of Fluorinoid® load bearing low friction materials we have gained a global reputation for providing slide bearing and skidway solutions to the construction, oil and gas industries.



Fluoroglide® Slide Bearings & Pipe Supports

Based on our 30 years of technical experience we offer a professional design, manufacturing and onsite consultancy service dedicated to resolving slide bearing and skidway needs. We also supply PTFE plain and dimpled inserts to leading manufacturers of pot bearings for road and bridge applications.

Fluoroglide® Slide Bearings & Pipe Supports

Fluoroglide® slide bearings are superior to conventional expansion plates, rollers and rocker arms, accommodating expansion, contraction and other reciprocating motions of any structure that moves as a result of thermal, seismic or differential forces. Such bearings operate at high loads and low speeds and it is under these conditions, together with its no stick-slip and anti-weathering characteristics, that the self-lubricating properties of Fluorinoid® PTFE are at a maximum.

We produce Fluoroglide® slide bearings in a range of configurations using either virgin or glass filled Fluorinoid® PTFE as the bearing material. Each bearing is designed specifically to suit the specific application.

Applications:

- Expansion movement in pipelines, heat exchangers, concrete decks or pipes
- Cryogenic, vibration and acoustic affects on pipelines
- Steam heated pipelines on North Sea oil production modules
- Oil, water & gas transportation - above ground pipe mains
- Buildings & bridges
- Pedestrian walkways

The Slide Bearing

Normally, a slide bearing consists simply of two pads of PTFE sliding against each other. The basic element is usually 2.5mm Fluorinoid® FL100 PTFE or FL129 reinforced PTFE sheet, factory bonded onto a 3mm carbon steel backing plate for straightforward field installation by welding or bolting.

For very high pressure applications a single pad may be used to counter face a polished stainless steel plate. The assembly is designed so that one pad (generally the top pad) is larger than the other by an amount in excess of the expected movement, so keeping the contact area constant throughout the cycle of motion.

Our Service:

- Alternative thicknesses and materials for the backing plate can be supplied, i.e. stainless steel 304 or 316
- Where operating conditions require them, thermal insulation and vibration dampening pads may be bonded between the backing plate and the structure
- To allow operation at high ambient temperature, a high temperature epoxy resin is used for bonding and the adhesives are cured under strictly controlled conditions, ensuring that the bond is stronger than the PTFE itself
- Peel testing results can be supplied where required
- Either virgin or glass filled Fluorinoid® PTFE is used as the bearing material
- Fluorinoid F100 PTFE is recommended for bearing pressures up to around 70kg/cm² (7N/mm²)
- Using Fluorinoid® FL129 the load bearing capacity is increased to 140kg/cm² (14N/mm²)
- Loads in excess of these can be accommodated by confining the material within a recessed housing and by using a polished stainless steel counter plate. Please discuss proposed configurations with our design and technical engineers

Design & Installation

The bearing components can be fixed to the installation by bolting, tack welding, full welding or mortar embedment and the appropriate type of bearing should be chosen according to the installation method. During installation the PTFE surface should be adequately protected against weld spatter, paint spray, etc.

PTFE Slide Bearing Considerations

The following steps will provide an indication of the slide bearing requirements for a particular application:

- Determine the total load of structure
- Decide the number and position of the bearing
- Operating environment
- Consider any unusual conditions
- Mounting method





Fluoroglide® Skidways

Based on the proven PTFE slide bearing technology, we design and manufacture a range of bonded PTFE/metallic Fluoroglide® skidway plates to suit individual customer requirements.

Fluoroglide® skidway plates are used in construction yards around the world to assist in skidding oil jackets, semi-submersible modules and heavy structures. Jackets, decks and semi-subs with weights up to 30,000 tonnes have been successfully loaded out on Fluoroglide® skidway plates.

The Skidway Plate

A typical Fluoroglide® skidway plate comprises of 2.5mm Fluorinoid® PTFE hot bonded to a 3mm carbon steel plate with a 25mm welding lip, for onsite tack welding without damage to the PTFE.

The Fluoroglide® range of skidways are based on the well proven and tested slide bearing manufacturing procedures which ensure low coefficient of friction and reliability in varying environments throughout the world.

Typical friction values are 5-10% for static breakout and 1-5% for dynamic skidding. These values are dependent upon:

- Surface finish of the timber skid shoe
- Flatness of the installed skidway plates
- Use of Fluoroslip

Fluoroslip FL415 Lubrication System

To reduce breakout friction we recommend the use of Fluoroslip FL415 and Fluoroslip FL414 with PTFE additive to aid effectiveness of our bearings. This combination of materials will reduce the initial static friction caused by:

- Long construction time
- Absorbent timber skid shoe
- Uneven loading
- Construction yard debris



**For Fluoroglide® Slide Bearings,
Pipe Supports & Skidways – contact**

Hertford Head Office

Fluorocarbon Ltd
Caxton Hill
Hertford
Herts
SG13 7NH
United Kingdom

Tel: +44 (0)845 250 5100
Fax: +44 (0)845 250 5101

Other contacts

UK & Export Sales & Manufacturing

Fluorocarbon Company Ltd

Hertford Head Office

Caxton Hill
Hertford
Herts
SG13 7NH
United Kingdom

Tel: +44 (0)845 250 5100
Fax: +44 (0)845 250 5101

Manchester Office

Northbank Industrial Park
Excalibur Way
Irlam
Manchester
M44 5DL
United Kingdom

Tel: +44 (0)161 777 6300
Fax: +44 (0)161 776 2503/7

The following trademarks are the intellectual property of The Fluorocarbon Group Ltd
Fluoroglide®
Fluorinoid®

The Fluorocarbon trademark is the intellectual property of The Fluorocarbon Group

FCL-SB-002 Issue 2

Web: www.fluorocarbon.co.uk
Email: info@fluorocarbon.co.uk

International

FBS Prestige

Nottingham Office

Unit B
Lilac Grove
Beeston
Nottingham
NG9 1PF
United Kingdom

Tel: +44 (0)845 250 5400
Fax: +44 (0)845 250 5401

Sheffield Office

Birley Vale Avenue
Sheffield
S12 2AX
United Kingdom

Tel: +44 (0)114 253 0353
Fax: +44 (0)114 253 0355

Fluorocarbon Ltd

Hertford Office

Caxton Hill
Hertford
Herts
SG13 7NH

Tel: +44 (0)845 250 5100
Tel: +44 (0)1992 587 983

European Sales Office

Fluorocarbon Company Ltd
Van Doesburg - ERF 50
3315 RB Dordrecht
The Netherlands

Tel: +31 78 654 0851
Fax: +31 78 654 0852

European Manufacturing Office

SC Fluorocarbon SRL
Strada Dunarii Nr. 277, Corp C10
Alexandria
Judetul Teleorman
Romania

Tel: +40 247 306170 / 314245
Fax: +40 247 421076

USA Sales Office

Fluorocarbon Company Ltd
One Riverway
Suite 1700
Houston
TX 77056
USA

Tel: +1 713 300 3796
Fax: +1 888 321 2566



FLUOROCARBON