

Case study

Clamp/support bearing pads



FL491 - JT Support Clamp Bearing Pads
Industry: Renewables - Offshore
Windfarms



The client requested an Elastomeric material with high friction and high load bearing capacity for use in the transportation of large diameter monopoles for offshore wind turbines.

Physical properties required for the clamp support pad:

1. The support clamp bearing surface has to very tough with a high tear strength to resist damage as the monopile is dragged across the surface during the offloading/installation process.
2. A static friction value in-excess of 0.45 to hold the monopile in place during transportation .
3. A Compressive Modulus of 16-19 Mpa



Fluorocarbon developed a range of Support Clamp Bearing Pads utilising our FL491 material to be used in the pipe support cradles; typical monopiles have a diameter of 6.5 meters and a weight of 1000 tonnes.

Measurement of coefficient of friction

Fluorocarbon designed and built special testing rigs for measuring friction values between Fluorinoid® FL491 and coated or untreated steel plate over a wide range of loads, for measuring coefficient of friction to achieve results which could be presented to a qualifying authority

Physical properties of FL491

Shore Hardness	Shore A	75 +-5
Tensile strength	Mpa	40 Mpa
Compressive Modulus	Mpa	17 +-2 Mpa
Coefficient of friction		0.7
Temperature Range		Up to 70°C
Marine Corrosion		Good

Fluorocarbon are able to supply FL491 JT Support Clamp Bearing Pads of varying dimensions to suit the clamp loadings and monopile diameter.

All pads are supplied with recessed fixing holes and sealing bungs.



FL491 JT support clamp bearings being assembled on the clamp plates

Find out how Fluorocarbon can help your company improve efficiency and save money at www.fluorocarbon.co.uk email info@fluorocarbon.co.uk or call us on 0845 2505 100