

## MATERIAL DATA SHEET – PBD450

### DUCTILE CAST IRON TO JIS FCD450

Commonly known as:- 3D; 65-45-12

**Typical Applications:-** Items requiring resistance to corrosion and thermal and mechanical shock in marine, automotive, hydraulics pump bodies, glands, moulds, gears, sprockets, impellers and rotors.

#### Chemical Composition %

Carbon	C	3.2 – 3.9
Silicon	Si	2.2 – 3.2
Manganese	Mn	0.1 – 0.4
Phosphor	P	≤ 0.1
Sulphur	Si	≤ 0.03
Iron	Fe	Balance

Mechanical Properties -	≤ 150mm Dia	≥ 150mm Dia
MPA Tensile Strength	420 MPA	400MPA
Elongation	≥ 12 %	≥ 8%
Typical Hardness	140 – 200 HB	
Machinability	Excellent	
Yield Strength	≥ 310	

**Similar Specifications:-** AS 1831-1985 400-250-12; BS 2789 SNG 27/12; ASTM A.536 65-45-12; DIN 1693 GGG40;