

CENTRIFUGAL CAST GREY IRON – HOLLOW BAR – GRADE 2P

Floccast 2P centrifugal cast grey iron hollow bar is pearlitic in structure with typical “Floccast” fine graphite flake size and dense homogeneous structure. These properties ensure its suitability in applications demanding the ability to withstand high pressure without leaking and to resist wear in sliding friction applications.

Typical Applications:

Hydraulics, Pneumatics: Pistons, bearings, control valves, rotors etc.

Machine Tools: Slide rails, bushes, gear wheels, cams, helical gears.

Pumps, Compressors: Pistons, gears, cylinder liners, pump rotors.

Glass making: Burners, moulds.

Automotive: Piston rings, pulleys, guides, brake/clutch cylinder liners.

General: Gears, machinery parts.

Production Range:

Outside diameter: 50mm – 650mm

Inside diameter: 20mm – 500mm

Bar length: 1metre approx standard

Annealing:

Heat to 780 – 850°C for ½ - 3 hours

Cool in furnace to 400°C – 500°C

Alternatively for extreme softness:

Heat to 850 – 900°C for 1-6 hours

Cool in furnace to 690°C, and hold for 2-3 hours then

Cool in furnace to room temperature.

Typical Chemical Analysis

Carbon	3.00 – 3.50%
Silicon	2.20 – 2.60%
Manganese	0.40 – 0.70%
Copper	0.30 – 1.00%
Chromium	0.10 – 0.60%

Typical Mechanical Properties:

Tensile Strength	220 – 260 MPa
Hardness Brinell	217 – 269
Compressive Strength	800 – 850 MPa

Typical properties for guidance only

Related Standards:

AS 1830	T 260
ASTM A48	Classes 35-40
BS 1452	Grade 250
DIN 1691	GG35
JIS G 5501	FC 25

Technological Properties:

Machinability	Very Good
Microfinish	Excellent
Rust & acid resistance	Very good
Damping capacity	Very good
Sliding	Excellent
Wear resistance	Excellent
Enamelling	Good
Surface	Free of sand

Repair Welding:

Pre-heat at 300°C, cool very slowly.

Post-weld stress relieve at 650°C.

Welding details for guidance only