



PART OF BIRN GROUP

TASSOBAR EN-GJS-450-10C

(According to EN 16482:2014, subsequently EN 1563:2023)

Characteristics

This grade has high wear resistance, strength and heat treatment response. It possesses good machinability and excellent surface finish. Noise and vibration damping are good in this grade.

Profile and size range	
Round	Diameter 41 – 440 mm
Square	40 x 40 mm – 280 x 280 mm
Rectangle	Upon request
Non-standard	Other sizes/profiles are available or can be produced according to agreement

Identification

Each TASSO-Bar is labelled with detailed information for full traceability:
Batch Number – Colour Code - Dimension – Material Grade.

T-011-24
Ø 110 +
EN-GJS-450-10C



Chemistry (main elements)

The chemical composition is subordinate to the mechanical properties and may vary depending on bar size and production flow parameters.

Elements	Typical %
Iron	Balance
Carbon	3.20-3.80
Silicon	2.20-2.80
Manganese	0.25-0.55
Phosphorous	0.04 (guidance)
Sulphur	0.01 (guidance)
Others/Alloying	Residual

Mechanical Properties: (As taken from mid-radius of cast bar, not separately cast test bar).

Material Specification	Material Section	0.2% Proof Strength N/mm ² min.	Tensile Strength N/mm ² min.	Elongation % min.
TassoBar EN-GJS-450-10C	20 mm - 60 mm	310	450	10
	>60 mm - 120 mm	To be agreed	To be agreed	To be agreed
	>120 mm - 400 mm	To be agreed	To be agreed	To be agreed

Reference: EN 16482:2014, Table 2

Brinell Hardness Range (Informative): 160-210 HB measured as an average of the center and the rim area of the bar (10 mm diameter ball).

Microstructure (Informative): Nodular graphite. The matrix is approx. 30% or less pearlitic and may contain minor quantities of free carbides.

Heat Treat Response: TassoBar EN-GJS-450-10C can be hardened, but higher grades are recommended.

Density: 7.25 g/cc + 3% for oversize and gross length of bar.

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