

# DATA SHEET

## Gray(Flake Graphite) Cast Iron

### TY Grade H2 (GC250, FC250)

**1. Characteristics:** H2 offers a good combination of strength and wear resistance over H1, while still possessing good machinability and excellent surface finish. Due to the graphite structure in H2 nose and vibration damping along with thermal conductivity are excellent in this grade.

**2. Conforms:** JIS G-5502 FC250, EN-16482: EN-GJL-250

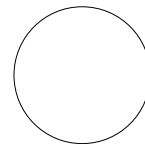
**3. Size Range:**

STANDARD SIZE AND SUPPLY.		
Concast (HD5)	Round	∅25mm ~ ∅260mm
	Square & Rectangle	■40×50 ~ ■205×220
Mold Cast (HD5M)	Round	∅270mm ~ ∅510mm (proof machined)
	Square & Rectangle	■200×250 ~ ■500×600
Standard Sizes	Length	· Continuous Cast Iron Bar: 3m(3000mm) · Metal Mold Cast: max. 1m(1000mm)
	Supply condition	· As-cast. Cut. · Round: turned and peeled · Square&Rectangle: milled (proof machined)
Non-Standard Sizes		other lengths available

**4. Chemistry: Typical Ranges:(Analysis at the discretion of T-Y)**

Color Code

ELEMENT	TYPICAL(%)
Carbon	2.70~3.70
Silicon	2.00~3.40
Manganese	max. 0.70
Phosphorous	max. 0.20
Sulfur	max. 0.20
Antimony	max. 0.10
Others/Alloying	Residual
Iron	Balance



**5. Mechanical Properties:** (Taken from mid-radius of cast bar, not separately cast test bar)

Material grade	Diameter(D) (mm)	0.2% Proof Stress min. (N/mm <sup>2</sup> )	Tensile (UTS) min. (N/mm <sup>2</sup> )	Elongation min. (%)	BHN 3000kgf (10mm dia Ball)
H2	D < 50	*	195	*	max.240
	50 < D ≤ 100	*	180	*	
	100 < D ≤ 200	*	165	*	
	200 < D	*	155	*	

**6. Microstructure:** Contains type'A' graphite flakes in accordance with ISO 945(Microstructure)

- Rim Zone: fine type 'D' and 'E' interdendritic graphite.  
predominantly ferritic.
- Matrix: greater than 50% pearlite



**7. Application:**