

CHEMICAL COMPOSITION OF CAST STEEL WHEEL

		In Ladle	In product
CARBON (% C) (Class B)		0.57-0.67	0.55-0.70
Manganese (Mn)		0.60-0.80	0.57-0.83
Silicon (Si)		0.15 -0.70	0.12-0.73
Chromium (Cr)	Combined 0.40 max	0.15 max	0.2 max
Molybdenum (Mo)		0.06 max	0.08 max
Nickel (Ni)		0.25 max	0.3 max
Sulphur (S)		0.03 max	0.035 max
Phosphorus (P)		0.03 max	0.035 max
Gas content			
Nitrogen (N ₂)		70 ppm max	
Hydrogen (H ₂)		03 ppm max	

PHYSICAL PROPERTIES

UTS (Rim Value Min)	- 98 to 100 Kg/mm²
Yield Strength	- 50% UTS
Elongation	- 5%
Hardness on rim	- 277 to 341 BHN
Micro Structure	- Fine Pearlite
ASTM Grain Size	- 7 to 8