

MATERIAL DATA SHEET

STEEL GRADE

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95Cr5

All

General Information

Imatra C 100 is high carbon grade alloyed with Cr and mainly used for grinding rods in ore processing

Similar designations

E51100

Chemical composition

Variant	Cast		C %	Si %	Mn %	P %	S %	Cr %
C100	CC	Min	0.90	-	0.25	-	-	0.80
		Max	1.20	0.50	0.50	0.030	0.040	1.70

Mechanical Properties

Variant	Condition	Format	Dimension [mm]	Hardness
C100	+AR	Round bar	< 100	340-400 HB

$Rp_{0.2}$ * R_{eh} , ** R_{el}

Transformation
temperatures

	Temperature °C
MS	220
AC1	750
AC3	750

Other properties (typical values)

Youngs module (GPa)	Poisson´s ratio (-)	Shear module (GPa)	Density (kg/m3)
210	0.3	80	7800
Average CTE 20-300°C (µm/m°K)	Specific heat capacity 50/100°C (J/kg °K)	Thermal conductivity Ambient temperature (W/m°K)	Electrical resistivity Ambient temperature (µΩm)
12	460 - 480	40 - 45	0.20 - 0.25

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