GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - BS EN 10250-2 C45E I 1.1191

Standard Specification for Open Die Steel Forgings for General Engineering Purposes

Group - Ferrous Mild Steel Alloys

Sub Group - BS EN 10250-2 C45E I 1.1191 Open Die Steel Forgings for General Engineering Purposes

Application - Intended for Valve, Pump, General Engineering, Automotive and other Industries

Grade Belongs to the Industry - Forging

Chemical Composition		
Carbon	C %	0.420 - 0.500
Silicon	Si %	0.400 max.
Manganese	Mn %	0.500 - 0.800
Phosphorus	P %	0.035 max.
Sulphur	S %	0.035 max.
Chromium	Cr %	0.400 max.
Molybdenum	Mo %	0.100 max.
Nickel	Ni %	0.400 max.
Cr + Mo + Ni	Cr% + Mo% + Ni%	0.630 max.
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
As-Raw or Normalizing or Normalizing & Tempering or Quenching & Tempering

Mechanical Properties	
Tensile Strength in Mpa	580 min.
Yield Strength in Mpa	305 min.
Elongation in %	16 min.
Reduction of Area in %	-
Hardness in HRB	-
Impact in Joule	-

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
EN 10083-1 C 45 R	B.S.	United Kingdom	Steel
10083-1 C 45 R	EN	European Union	Steel
EN 10083-1 C 45 R	AFNOR NF	France	Steel
C 45 R	NBN	Belgium	Steel
EN 10083-1 C 45 R	NS	Norway	Steel
EN 10083-1 C 45 R	UNI	Italy	Steel
36051-2 C 45K	UNE	Spain	Steel

Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email marketing@gravitycastindia.com

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy option rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of business.