GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASTM A1011 HSLAS-F Grade 60 [410]

Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability

Group - Ferrous Mild Steel Alloys

Sub Group - ASTM A1011 HSLAS-F Grade 60 [410] Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability

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

Grade Belongs to the Industry - Sheet and Strip

Chemical Composition		
Carbon	C %	0.150 max.
Manganese	Mn %	1.650 max.
Phosphorus	P %	0.020 max.
Sulphur	S %	0.025 max.
Copper	Cu %	0.200 max.
Nickel	Ni %	0.200 max.
Chromium	Cr %	0.150 max.
Molybdenum	Mo %	0.060 max.
Cr + Cu + Mo + Ni	Cr% + Cu% + Mo% + Ni%	0.500 max.
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

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

Mechanical Properties	
Tensile Strength in Mpa	480 min.
Yield Strength in Mpa	410 min.
Elongation in %	22 min.
Reduction of Area in %	-
Hardness in HB	-
Impact in Joule	-

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
A 1008 HSLAS-F Grade 60 [410]	ASTM	USA	Steel and Sheet
A 1018 HSLAS-F Grade 60 [410]	ASTM	USA	Steel
A 591 A715-HSLAS Grade 60	ASTM	USA	Steel and Sheet
A 715 Grade 60	ASTM	USA	Sheet and Strip
A 715 Grade 70	ASTM	USA	Sheet and Strip
SA-1008 HSLAS-F Grade 60 [410]	ASME	USA	Steel and Sheet
SA-1011 HSLAS-F Grade 60 [410]	ASME	USA	Sheet and Strip

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

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