GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

# Material - ASME SA-649 Class 3

## Standard Specification for Forged Steel Rolls Used for Corrugating Paper Machinery

**Group - Ferrous Mild Steel Alloys**
**Sub Group - ASME SA-649 Class 3 Forged Steel Rolls Used for Corrugating Paper Machinery**
**Application - Intended for Valve, Pump, General Engineering, Automotive and other Industries**
**Grade Belongs to the Industry - Forging**

| Chemical Composition | | |
|---|---|---|
| Carbon | C % | 0.350 max. |
| Manganese | Mn % | 0.400 - 0.700 |
| Phosphorus | P % | 0.025 max. |
| Sulphur | S % | 0.025 max. |
| Silicon | Si % | 0.150 - 0.350 |
| Chromium | Cr % | 0.800 - 1.150 |
| Molybdenum | Mo % | 0.150 - 0.250 |
| Iron | Fe % | Balance |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |

| Heat Treatment |
|---|
| Annealing or Quenching & Tempering or Normalizing & Tempering or Annealing |

| Mechanical Properties | |
|---|---|
| Tensile Strength in Mpa | 415 min. |
| Yield Strength in Mpa | 205 min. |
| Elongation in % | 22 min. |
| Reduction of Area in % | 55 min. |
| Hardness in HB | - |
| Impact in Joule | - |

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| Cross Reference Table | | | |
|---|---|---|---|
| **Material** | **Standard** | **Country** | **Grade Belong to the Industry** |
| K13047 | UNS | USA | Steel |
| K13051 | UNS | USA | Steel |
| SA-29 Grade 4130 | ASME | USA | Steel and Bars |
| 6403 30 CrMo 4 | UNI | Italy | Steel and Tubing |
| 35-557 30 CD 4 | AFNOR NF | France | Steel |
| A 29 4130 | ASTM | USA | Steel and Bars |
| A 505 4130 | ASTM | 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**

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.