



**GRAVITY CAST PVT. LTD.**  
GRAVITY GROUP OF COMPANIES

## Material - SAE J403 | SAE J1397 UNS G10490 - Cold Drawn Standard Specification For Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Bars, To Wire Rods, Plates, Strip, Sheets and Tubing

Group - Ferrous Mild Steel Alloys

Sub Group - SAE J403 | SAE J1397 UNS G10490 - Cold Drawn Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Bars, Wire Rods, Plates, Strip, Sheets and Tubing

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

Grade Belongs to the Industry - Bars, Wire Rods, Plates, Strip, Sheets and Tubing

| Chemical Composition |      |               | Heat Treatment  |          |
|----------------------|------|---------------|---|----------|
| Carbon               | C %  | 0.460 - 0.530 | As Raw or Annealing or Normalizing or Hardening and Tempering |          |
| Manganese            | Mn % | 0.600 - 0.900 |   |          |
| Phosphorus           | P %  | 0.030 max.    |   |          |
| Sulphur              | S %  | 0.050 max.    |   |          |
| Iron                 | Fe % | Balance       |   |          |
| -                    | -    | -             |   |          |
| -                    | -    | -             |   |          |
| -                    | -    | -             |   |          |
| -                    | -    | -             |   |          |
| -                    | -    | -             |   |          |
|                      |      |               | Mechanical Properties   |          |
|                      |      |               | Tensile Strength in Mpa                                       | 670 min. |
|                      |      |               | Yield Strength in Mpa   | 560 min. |
|                      |      |               | Elongation in %   | 10 min.  |
|                      |      |               | Reduction of Area in %  | 30 min.  |
|                      |      |               | Hardness in HB  | 197 max. |
|                      |      |               | Impact in Joule   | -        |

| Cross Reference Table |          |         |                                 |
|-----------------------|----------|---------|---------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry    |
| 1049                  | SAE      | USA     | Steel                           |
| 1049                  | AISI     | USA     | Bar                             |
| A 830 G10490          | ASTM     | USA     | Plate and Steel                 |
| A 830 1049            | ASTM     | USA     | Plate and Steel                 |
| A 576 10L49           | ASTM     | USA     | Steel                           |
| A 29 1049             | ASTM     | USA     | Steel and Bar                   |
| A 510 1049            | ASTM     | USA     | Wire Rods, Round Wire and 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](mailto: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.

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