



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

## Material - JIS G 3539 SWCH 12K

**Standard Specification for Carbon Steel Wire Rods for Cold Heading and Cold Forging**

**Group - Ferrous Mild Steel Alloys**

**Sub Group - JIS G 3539 SWCH 12K Carbon Steel Wire Rods for Cold Heading and Cold Forging**

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

**Grade Belongs to the Industry - Wire Rod and Forging**

Chemical Composition			Heat Treatment	
Carbon	C %	0.100 - 0.150	As Raw or Normalizing or Annealing or Hardening and Tempering	
Silicon	Si %	0.100 - 0.350		
Manganese	Mn %	0.300 - 0.600		
Phosphorus	P %	0.030 max.		
Sulphur	S %	0.035 max.		
Iron	Fe %	Balance		
-	-	-		
-	-	-	<b>Mechanical Properties</b> Tensile Strength in Mpa      340 min. Yield Strength in Mpa      - Elongation in %      - Reduction of Area in %      45 min. Hardness in HRC      90 max. Impact in Joule      -	
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
SWRCH 12K	JIS	Japan	Wire Rod and Forging
SWRCH12K	MS	Malaysia	Wire Rod and Forging
SWRCH12K	KS	Korea	Wire Rod and Forging
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

**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.

**ONE STOP SOLUTION FOR METAL PARTS**