Spring Steel SUP9 (JIS G4801) and 55Cr3 (EN 10089)

Designations: SUP9 | 55Cr3 | 1.7176

Applicable standards: JIS G4801, EN 10089

Product Description

Ochnology is a manufacturer and supplier of SUP9 and 55Cr3 spring steel in flat bar and round bar. Both are chromium-manganese spring steels with about 0.52–0.60% C, 0.65–1.0% Mn and 0.65–1.0% Cr. After quenching and tempering they reach about 42–52 HRC with high fatigue strength and elastic limit. They are used for automotive leaf springs, coil springs, stabiliser bars, railway clips and agricultural implements.

Chemical Composition (% by weight)

Element	SUP9 (JIS G4801)	55Cr3 (EN 10089)
Carbon (C)	0.52–0.60	0.52–0.59
Silicon (Si)	0.15–0.35	0.10–0.40
Manganese (Mn)	0.65–0.95	0.70–1.00
Chromium (Cr)	0.65–0.95	0.70–1.00
Phosphorus (P)	≤ 0.035	≤ 0.025
Sulphur (S)	≤ 0.035	≤ 0.025

Mechanical and Physical Properties

Property	SUP9 (JIS G4801)	55Cr3 (EN 10089)
Hardness after quench and temper	about 42–52 HRC	about 42–52 HRC

Supply Details

Item	Detail
Density	7.85 g/cm³
Forms	Flat bar, round bar
Delivery condition	Hot rolled / annealed; quenched and tempered on request
Certification	Mill test certificate (EN 10204 3.1) and third-party inspection available on request

Typical Applications

- Automotive leaf springs
- Coil springs and stabiliser bars
- Railway clips
- Agricultural implements

Ordering Information

To request a quotation, send the grade and standard, form, size or thickness, quantity, delivery condition, destination port and required certificates to info@ochnology.com or bd@ochnology.com. Typical values apply to the stated standards; actual values are certified on the mill test certificate for each lot.

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