

# HIGH STRENGTH SPRINGS

## 50SiMoVNb8



Inclusion engineering and longer fatigue life in lighter suspension springs

### APPLICATION

- Steel for hot or cold forming **helicoïdal suspension springs**.



### ADVANTAGES

More compact and economic suspensions	Excellent mechanical properties	Very good microstructure	Homogeneity of performance	Good behaviour under shock impacts
Reduction of size and weight of suspension springs	High tensile strength (>2.000 MPa) and yield strength (>1.900 MPa), keeping good toughness	Very fine grain size (>10 ASTM)	High stability against tempering temperature fluctuations	Low sensitivity to notch effect

### APPLIED TECHNOLOGY

- Fine **microprecipitation** of Niobium and Vanadium carbonitrides.
- Accurate control of secondary metallurgy, vacuum and solidification processes to obtain a homogeneous distribution of precipitates.
- Thermomechanical hot rolling and controlled cooling.