

## SSAB Tunplatt Docol® 1400 DP High-strength Steel

Category : Metal , Ferrous Metal , Alloy Steel , Low Alloy Steel

### Material Notes:

The steels are annealed at temperatures between 750°C and 850°C, depending on the grade of steel, and then are hardened by quenching in water. Tempering is the next stage, in which the steel is heated to 200-400°C and then acquires its final structure to which the steel owes its toughness and good formability. This unique annealing procedure produces a tempered martensitic structure that accounts for the high strength of the steel. Both annealing and tempering are carried out in an inert atmosphere to prevent the steel from oxidizing, and the steel strip runs through a pickling bath between quenching and tempering, in order to remove the thin oxide film formed in the quenching process. Comments: Docol - Cold Rolled Steel - Ultra high-strength steel (UHS). Property values are for cold-rolled steel; thicknesses 0.5 - 1.6 mm. Applications: Tubes, Transport cages, Child seats for cars, Truck load stays, Venetian blinds, Washers, Hose clips, Clutch plates, Hedge cutters, Springs, Spades, Safes, Knives, Train seats, Ladders, Circlips, Saw blades, Chains, Bumpers, Bicycles, Containers, Clips Data provided by SSAB Tunplatt.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SSAB-Tunplatt-Docol-1400-DP-High-strength-Steel.php](http://www.lookpolymers.com/polymer_SSAB-Tunplatt-Docol-1400-DP-High-strength-Steel.php)

Physical Properties	Metric	English	Comments
Density	7.87 g/cc	0.284 lb/in <sup>3</sup>	Estimated by MatWeb

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	1400 - 1600 MPa	203000 - 232000 psi	
Tensile Strength, Yield	>= 1300 MPa	>= 189000 psi	After bake hardening
	1150 - 1300 MPa	167000 - 189000 psi	
	@Strain 0.200 %	@Strain 0.200 %	
Elongation at Break	>= 3.0 %	>= 3.0 %	A<sub>80</sub>
Bend Radius, Minimum	>= 4.0 t	>= 4.0 t	90° bend

Component Elements Properties	Metric	English	Comments
Aluminum, Al	0.040 %	0.040 %	
Carbon, C	0.17 %	0.17 %	
Iron, Fe	98 %	98 %	As remainder
Manganese, Mn	1.6 %	1.6 %	
Niobium, Nb (Columbium, Cb)	0.015 %	0.015 %	
Phosphorous, P	0.015 %	0.015 %	

Component Elements Properties	Metric	English	Comments
Sulfur, S	0.0020 %	0.0020 %	

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China