Si-TSS 439

Spengler Industries Terne clad stainless grade 439

SPENGLER INDUSTRIES

Material 1.4510 according to DIN 17441/EN 10 088-2

Spengler Industries	(DIN/EN)	X 3 CrTi17 / X 6 CrTi17
USA	(AISI)	439 / 430

Chemical Composition

	C	Cr	Ti
Min.	-	16.0	4 x (C + N) + 0.15
Max.	0.05	18.00	0.80

Mechanical Properties

Dimensional Range	RP (0.2% yield strength) N/mm ^{2}	RM tensile strength N/mm ^{2}	A80 breaking strain %
Cold-rolled strip s < 6 mm	> 240	400 – 600	> 23

Minimum Values at Higher Temperatures (0.2%-yield strength) N/mm ^{3}

Temperature °C	100	150	200	250	300	350
Rp0.2	195	190	185	175	165	155

Physical Properties

Density kg/dm ^{3}	Elasticity Modulus in kN/mm ^{2}					Thermal Expansion in 10-6 . K-1 between 20°C and				
	20°C	100°C	200°C	300°C	400°C	100°C	200°C	300°C	400°C	500°C
7.7	220	218	212	205	197	10.0	10.0	10.5	10.5	11.0

Thermal Conductivity by 20°C W/m.K	Specific Heat Capacity by 20°C J/kg.K	Electrical Resistance by 20°C Ω.mm ²/m	Magnetizability
25	460	0.60	Extant

Forms of Delivery

Sheets: 1 meter (39.4 inches) x choice of 10 ft or 8 ft
Coils: Standard is 20 inch, but custom widths available upon request

Surface Finish

The stainless steel sheet is provided with an electrolytically deposited tin layer. This metallic coating is not related to the corrosion resistance of stainless steel.

Forming

Si TSS 439 forms easily with most standard sheet metal forming machinery and hand tools. Preformed roofing panels for double-locked standing seam systems are also available in lengths up to 35 feet.

Maintenance

Si TSS 439 is a maintenance-free material. It requires no surface treatment before or after installation. It is recommended that dirt and debris be removed promptly to avoid stains due to oxides/chemical reactions. Si TSS 439 will weather over time and soften from its shiny metallic finish to a soft earthen gray. The time it takes for the material to weather depends on a number of atmospheric and environmental factors and therefore, the material will weather relative to local conditions. The use of oxide accelerants to speed up this natural weathering process should not be attempted.

Soldering

Use soldering irons only (3 pound maximum). Use 50/50 tin-lead solder. Do not use welding or torches.

Transport/Storage

Store dry.

Dimensions, Tolerances

Thickness 0.5 mm (0.019 inch), other thicknesses on request.