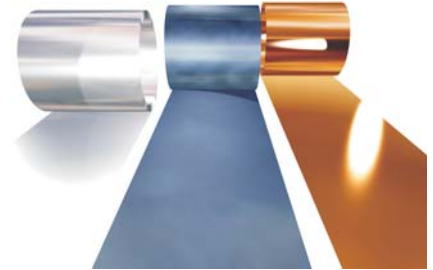


Contibelt CB 301 SGA is a cold rolled austenitic stainless steel which has been produced specifically for steel belt applications. This material, besides inhibiting high strength characteristics, has got properties such as high fatigue strength, good corrosion resistance and good weldability.

The surface is mill finish according to 2B of ASTM with a selected cold rolled temper finish. The surface is smooth and clear, metallurgically clean, minor surface defects are admissible.

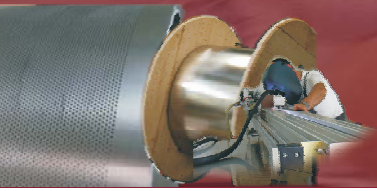


Chemical Composition:

Carbon	≤	0.12	%
Silicone	≤	1.50	%
Manganese	≤	2.00	%
Phosphorus	≤	0.045	%
Sulphur	≤	0.030	%
Nickel		7.00	%
Chromium		17.00	%

Mechanical Properties:

Tensile strength at RT		1 200	[N/mm ²]	174	[ksi]
Yield point 0.2 at RT		1 000	[N/mm ²]	145	[ksi]
Elongation		23	[%]		
Hardness:	Vickers	HV 10	360		
	Rockwell	HRC	38		
Fatigue strength at RT		460	[N/mm ²]	67	[ksi]
Welding factor		0.70			



Physical Properties:

Modulus of elasticity at:	20 °C	200 000	[N/mm ²]
	100 °C	194 000	[N/mm ²]
	200 °C	186 000	[N/mm ²]
	300 °C	179 000	[N/mm ²]
	68 °F	29 000	[ksi]
	212 °F	28 100	[ksi]
	392 °F	27 000	[ksi]
	572 °F	26 000	[ksi]
Density:	7.93 [kg/dm ³]	0.285	[lbs/in ³]
Mean thermal expansion coefficient:			
	20-100 °C	17.5	[m/mK * 10 ⁻⁶]
	20-200 °C	18.0	[m/mK * 10 ⁻⁶]
	20-300 °C	18.5	[m/mK * 10 ⁻⁶]
	68-212 °F	8.9	[ΔL/L °F * 10 ⁻⁶]
	68-392 °F	9.9	[ΔL/L °F * 10 ⁻⁶]
	68-572 °F	9.7	[ΔL/L °F * 10 ⁻⁶]
Specific Heat at 20 °C (68 °F):			
	0.50 [J/gK]	0.12	[Btu/lbF]
Thermal conductivity:			
	0-100 °C	15	[W/mK]
	0-400 °C	23	[W/mK]
	32-212 °F	8.7	[Btu/ftHf]
	32-752 °F	13.3	[Btu/ftHf]
Specific electrical resistance at:	20 °C (68 °F)	0.73	[Ωmm ² /m]

Temperature Stability:

At elevated temperatures, a reduction in tensile strength can be observed. Above Temperatures of 250 °C (482 °F) this reduction reaches considerable extents. If an operation temperature above 250 °C is considered, Contibelt should be contacted for technical assistance.

Contibelt Band Systeme GmbH believes the information herein to be reliable. However, the technical information is given by Contibelt without charge, and the user shall employ such information at own discretion and risk. Contibelt assumes no responsibility for results obtained or damages incurred from the use of such information in whole or in part.

file://2007-06-30 Werkstoffdatenblatt CB 301 SGA_english.cdr