

TECHNICAL DATA SHEET

MATERIAL - STAINLESS STEEL

THIS STEEL IS A SPECIAL MODIFICATION OF 18/8 CHROME NICKEL CONTAINING A SUBSTANTIAL ADDITION OF MOLYBDENUM WHICH GIVES IT MUCH IMPROVED CORROSION RESISTING CHARACTERISTICS OVER TYPE 304 IN CHEMICAL ATMOSPHERES, A WIDE RANGE OF SALTS, FOOD AND VARIOUS ACIDS.

THIS QUALITY IS WIDELY USED IN THE MANUFACTURE OF ROPES, PARTICULARLY YACHT RIGGING WHERE THERE IS CONTACT WITH SALT WATER

SS.316 QUALITY

EQUIVALENT TO BS.970, 316.S16 AISI.316 WERKSTOFF NO. 4401

TYPICAL ANALYSIS

C	Si	Mn	Cr	Ni	Mo
.045	.44	1.45	16.9	10.4	2.28

PHYSICAL PROPERTIES

MELTING POINT	1430°C
SPECIFIC GRAVITY	7.96, EQUIVALENT TO 7945 Kg/mm(3)
MODULUS OF ELASTICITY	SOFTENED, 20790 kG/mm(2)
SPECIFIC HEAT	0.12 CALORIES/°C/g
THERMAL CONDUCTIVITY	@20°C 0.039CGS UNITS
	@100°C 0.042CGS UNITS
ELECTRICAL RESISTIVITY	@20°C 78 microhms/cm(3)
	@100°C 84 microhms/cm(3)
COEFFICIENT OF THERMAL EXPANSION	20/100°C 0.000016
MAGNETIC PROPERTIES	PERMEABILITY (SOFTENED) 1.005 TO 1.03

HEATTREATMENT

SOFTENING	HEAT TO 1050°C AND RAPIDLY COOL IN AIR
HARDENING	NON-HARDENING EXCEPT BY COLD WORKING

WELDING PROPERTIES


GOOD - POST WELD HEAT TREATMENT NOT NECESSARY

MAXIMUM PROPERTIES

FAIR

PART NUMBER	DIAMETER OF FORMER	TOTAL NO. OF WIRES	STRAND SIZE (mm)	MIN % COVERAGE	CABLE BUNDLE TOLERANCE
PBS90-3.0-S	3.0	80	0.13	90	2.0 - 3.5
PBS90-4.0-S	4.0	112	0.13	90	3.0 - 5.0
PBS90-5.0-S	5.0	144	0.13	90	4.0 - 6.0
PBS90-6.0-S	6.0	168	0.13	90	5.0 - 7.0
PBS90-10.0-S	10.0	216	0.16	90	7.0 - 12.0
PBS90-12.5-S	12.5	240	0.16	90	11.0 - 13.0
PBS90-15.0-S	15.0	264	0.20	90	13.0 - 18.0
PBS90-20.0-S	20.0	288	0.25	90	17.0 - 23.0
PBS90-25.0-S	25.0	336	0.25	90	22.0 - 28.0
PBS90-30.0-S	30.0	336	0.25	90	27.0 - 36.0

PBS95-3.0-S	3.0	160	0.10	95	2.5 - 5.0
PBS95-4.0-S	4.0	168	0.13	95	3.5 - 7.5
PBS95-6.0-S	6.0	216	0.13	95	4.5 - 9.5
PBS95-7.5-S	7.5	336	0.13	95	7.0 - 14.0
PBS95-10-S	10.0	384	0.13	95	8.0 - 22.0
PBS95-12.5-S	12.5	576	0.13	95	11.0 - 24.0
PBS95-20.0-S	20.0	768	0.13	95	16.0 - 38.0
PBS95-25.0-S	25.0	864	0.13	95	22.0 - 38.0
PBS95-30.0-S	30.0	960	0.16	95	27.0 - 40.0
PBS95-35.0-S	35.0	960	0.16	95	30.0 - 50.0
PBS95-40.0-S	40.0	768	0.20	95	35.0 - 60.0
PBS95-50.0-S	50.0	504	0.30	95	40.0 - 65.0

TECH DATA	STAINLESS STEEL BRAID
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