ABRASERVICE

ROC 450

ROC 450 is a wear-resistant steel supplied in quenched condition. Quenching and strictly designed chemical analysis provide very hard martensitic microstructure. ROC 450 is more than 2 times harder than mild steel, which gives opportunity to increase working time of wear parts up to 2.5 – 3 times.

CHEMICAL COMPOSITION % (maximum values)

C	Mn	Ni	Cr	B	S	P	Si
≤ 0.25	≤ 1.80	≤ 0.80	≤ 1.50	≤ 0.005	≤ 0.01	≤ 0.025	≤ 0.80

MECHANICAL PROPERTIES (typical values)

Hardness (HBW)	Yeld strenght (MPa)	Tensile strength (MPa)	A5 (%)	Impact strength KV -40 °C (J)
450	1200	1400	10	30

Hardness range (delivery condition): 410-490 HBW*
* Brinell hardness, HBW, according to EN ISO 6506-1, on a milled surface below surface typically 0.5 – 3 mm depending on plate thickness"

PROCESSING REQUIREMENTS

BENDING

Should be performed using recommended upper tool radius and die width regarding plate thickness and rolling direction.

Rolling directioon	Minimum bending radius (r)	Minimum die width (w)
Transversal	6 × t	12 × t
Longitudinal	7 × t	14 x t

WELDING AND FLAME CUTTING

Can be performed with all available methods. It is recommended to use soft welding consumables. Processes should be performed in room temperature with suitable preheating and heat input depending on plate thickness to avoid cold cracking.

DIMENSIONS & TOLERANCES

DIMENSIONS

ROC 450 is available in thickness range 3 – 50 mm and typical widths and lengths or to specific dimensions required by the customer.

TOLERANCES

According to EN 10029 for plate products.

According to EN 10051 for strip products.

CONTACT

TECHNICAL SUPPORT

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