Union Electric Åkers
Forged and Cast Rolls

Product Data

SECTION MILL ROLLS
EDGER ROLLS HSM

NIRA MO

Cast Nodular Iron

Chemical composition

	C	Mn	Si	Cr	Mo	Ni	W, V Nb
NIRA MO	3.0 – 4.0	0.5 – 1.5	1.5 – 2.5	<0.5	0.2 – 1.0	1.5 – 2.5	–
NIRA P	3.0 – 4.0	0.3 – 1.0	0.5 – 2.5	<1.0	<1.0	1.0 – 3.5	–
NIRA AC	3.0 – 4.0	0.3 – 1.3	0.5 – 2.5	<1.0	0.5 – 1.0	2.5 – 4.5	–
NIRA P CR	3.0 – 4.0	0.5 – 1.5	1.0 – 2.5	0.5 – 2.0	<1.0	2.0 – 4.0	–
NIRA AC CR	3.0 – 4.0	0.5 – 1.5	1.0 – 2.5	0.5 – 2.0	<1.0	2.0 – 4.0	–
NICRA	3.0 – 4.0	0.3 – 1.0	0.5 – 2.5	<1.0	<1.0	1.0 – 3.5	0.5 – 2.0

Properties

	Hardness ShC	Tensile strength MPa	Bending strength MPa
NIRA MO	38-48	500-750	900-1300
NIRA P	45-67	400-600	800-1100
NIRA AC	48-76	500-800	800-1200
NIRA P CR	51-67	400-600	600-900
NIRA AC CR	51-67	400-600	750-1000
NICRA	45-67	400-600	800-1100

Comparative properties

	Fire crack resistance	Toughness	Wear resistance
NIRA MO	▬▬	▬	▬
NIRA P	▬	▬	▬
NIRA AC	▬	▬	▬
NIRA P CR	▪	▪	▬
NIRA AC CR	▪	▪	▬▬
NICRA	▬	▬	▬

Description

Normalized, Mo-alloyed, pearlitic/bainitic nodular iron.

Applications

Two- and three-high Blooming Mills.

Roughing and intermediate stands of heavy and medium Section Mills.

Edging rolls for Hot Strip Mills.

Features & Benefits

- No hardness drop
- Excellent fire crack resistance

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