Union Electric Åkers
Forged and Cast Rolls

Product Data
SECTION MILL ROLLS

NIRA AC

Cast Nodular Iron

Chemical composition

	C	Mn	Si	Cr	Mo	Ni	W, V Nb
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	3.0 – 4.0	0.3 – 1.0	0.5 – 2.5	<1.0	<1.0	1.0 – 3.5	–
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	–
NIRA MO	3.0 – 4.0	0.5 – 1.5	1.5 – 2.5	<0.5	0.2 – 1.0	1.5 – 2.5	–
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 AC	48-76	500-800	800-1200
NIRA P	45-67	400-600	800-1100
NIRA P CR	51-67	400-600	600-900
NIRA AC CR	51-67	400-600	750-1000
NIRA MO	38-48	500-750	900-1300
NICRA	45-67	400-600	800-1100

Comparative properties

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

Description

Acicular nodular iron rolls.

Applications

• Intermediate and Finishing stands of heavy and medium section mills.

• Vertical rolls.

Features & Benefits

- Suitable for most applications
- Improved wear resistance compared to NIRA P

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