

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

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

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	—	—	—