

Roll Grade Descriptions

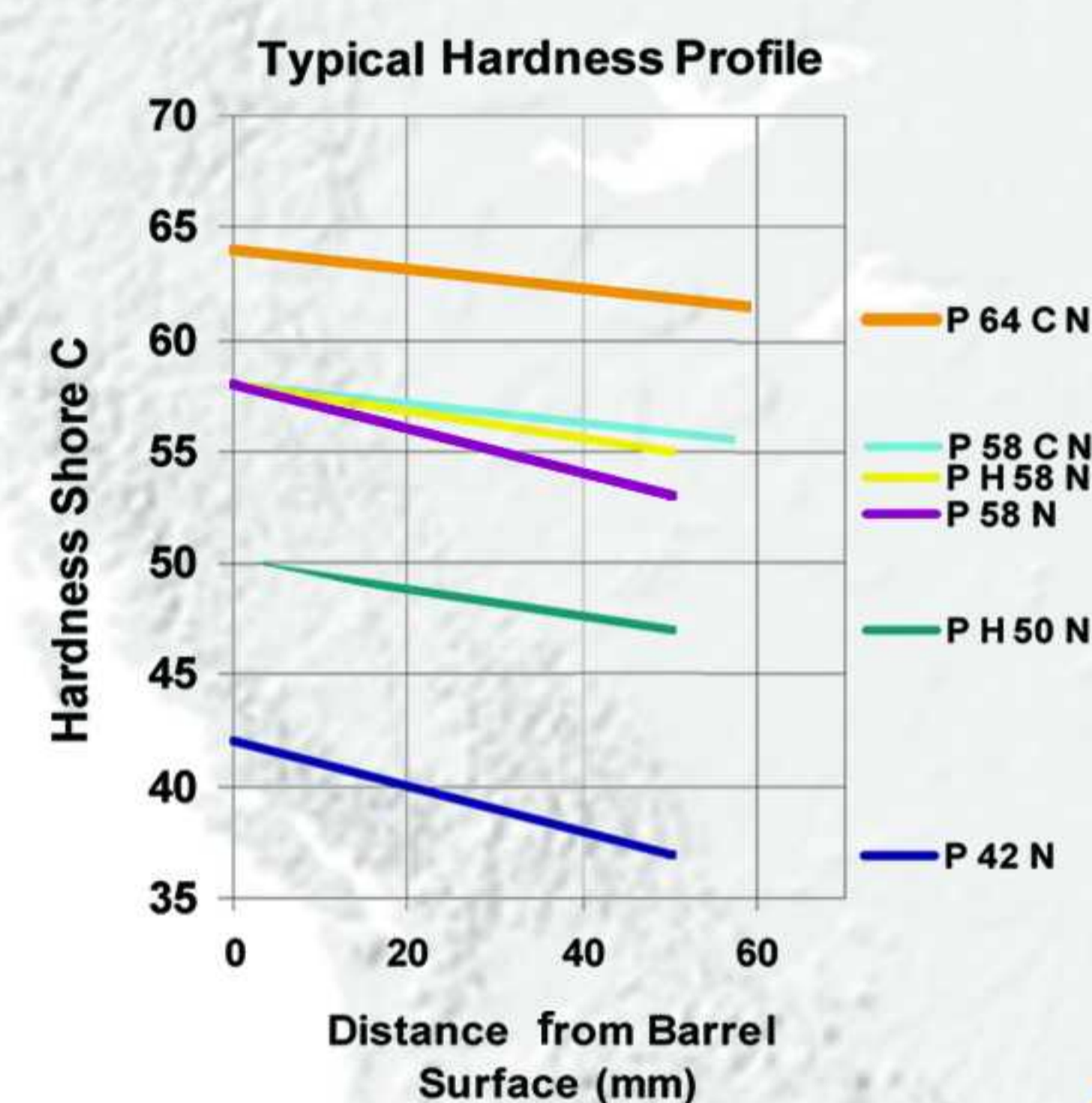
PO

Pearlitic Rolls

Pearlitic rolls are Cast Iron rolls with nodular graphite. The softest have a pearlitic matrix with Bull's Eyes ferrite, while the hardest grades have a bainitic-pearlitic matrix. Normalized pearlitic grades show a lower hardness drop and higher strength.

Pearlitic rolls are rarely double poured but can be in order to meet the requirements for a specific application. Heat treated grades are Normalized

These grades are suitable for rolls with deep grooves for rolling heavy sections. Softer grades are suitable for hot rolling in roughing and intermediate stands.



P54N-Pearlitic Matrix with Carbides and Nodular Graphite(x100)



P54N-Pearlitic Matrix with Carbides (x500)

Chemical Composition and Mechanical Properties for Pearlitic Rolls

Roll Grade	Barrels Hardness (Shc)	C (%)	Si (%)	Mn (%)	Cr (%)	Ni (%)	Mo (%)	Tensile Strength (N/mm) ²	Bending Strength (N/mm) ²
P42N	42	3.2-3.6	1.4-2.2	0.2-0.8	0.1-0.4	1.2-2.2	0.1-0.3	400-600	700-1100
P46N	46	3.2-3.6	1.4-2.2	0.2-0.8	0.1-0.4	1.2-2.2	0.1-0.3	400-600	700-1100
P50N	50	3.2-3.6	1.2-2.0	0.2-0.8	0.2-0.5	2.2-2.5	0.2-0.5	400-600	700-1100
P54N	54	3.2-3.6	1.2-2.0	0.2-0.8	0.2-0.6	1.4-2.5	0.2-0.6	400-600	700-1100
P58N	58	3.2-3.6	1.2-2.0	0.2-0.8	0.4-0.8	1.4-3.0	0.2-0.6	400-600	700-1100
P62N	62	3.2-3.6	1.2-2.0	0.2-0.8	0.4-0.8	1.4-3.2	0.2-0.6	400-600	700-1100
PH42N	42	3.2-3.6	1.4-2.2	0.2-0.7	0.1-0.3	1.2-2.2	0.1-0.3	450-700	700-1200
PH46N	46	3.2-3.6	1.4-2.2	0.2-0.7	0.1-0.3	1.2-2.2	0.1-0.3	450-700	700-1200
PH50N	50	3.2-3.6	1.4-2.2	0.2-0.7	0.2-0.5	1.2-2.2	0.1-0.3	450-700	700-1200
PH54N	54	3.2-3.6	1.2-2.0	0.2-0.7	0.2-0.6	1.2-2.2	0.2-0.5	450-700	700-1200
PH58N	58	3.2-3.6	1.2-2.0	0.2-0.7	0.2-0.6	1.2-2.4	0.2-0.5	450-700	700-1200
PH62N	62	3.2-3.6	1.2-2.0	0.2-0.7	0.2-0.6	1.2-2.6	0.2-0.5	450-700	700-1200
PH68N	68	3.2-3.6	1.2-2.0	0.2-0.7	0.3-1.0	1.2-2.8	0.2-0.5	450-700	700-1200
P58CN	58	3.2-3.6	1.2-2.0	0.2-0.8	0.1-0.6	1.5-2.6	0.1-0.5	See Page A	
P62CN	62	3.2-3.6	1.2-2.0	0.2-0.8	0.2-0.8	1.5-2.8	0.1-0.5	See Page A	
P64CN	64	3.2-3.6	1.2-2.0	0.2-0.8	0.2-0.8	1.5-2.8	0.1-0.5	See Page A	
P68CN	68	3.2-3.6	1.1-1.8	0.4-1.0	0.5-1.0	2.0-3.2	0.2-0.6	See Page A	

Note: Other roll grades, not specified in the table can be produced on request

