

R100 Bearing steel

Typical Analysis (Ave. values %)	C	Si	Mn	Cr	S	P	
	1.0	0.30	0.30	1.5	0.025	0.025	
NEAREST STANDARD	AS		DIN		BS		AISI
	52100		1.3505 100 Cr 6		EN31 S135		52100

DESCRIPTION	R100 is an oil hardening steel combining good abrasion resistance and compressive strength with excellent dimensional stability in heat treatment. It is readily machinable and is excellent for forming hot or cold in the annealed condition.
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APPLICATIONS	Used in roller bearings, rolls for metal, plastics, linoleum, etc crushing rings, blanking dies, punches, forming tools, lathe centres, gauges, cams, bushes marking dies, master hobs, hand taps.
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HEAT TREATMENT	Forge	850-1100°C, slow furnace cool.
	Normalize	870-900°C air cool.
	Anneal	750-800°C slow cool in controlled furnace.
	Stress relieve	600-650°C air cool.
	Harden	830-870°C oil quench. 800-830°C water quench.
	Temper	150-200°C
	Hardness	63-65 R/C

MECHANICAL PROPERTIES (Spheroidise annealed)	Tensile Strength MPa	Yield Strength MPa	Elong %	Red. Of area %	Hardness Hb
	640	340	30	65	190

WELDING	Limited to minor repair work, Bohler FOX OH1 Electrodes. Please consult our welding engineers.
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SIZE RANGE	Round	14 to 63 mm Peeled
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LOCATIONS

Bohler Uddeholm Australia Pty Ltd ABN 15000013052

Sydney	129-135 McCredie Rd Guildford	2161	Ph (02) 8724 5554	Fax (02) 8724 5555
Newcastle	3 Pavilion Pl Cardiff	2285	Ph (02) 4954 6611	Fax (02) 4956 5773
Albury	1 Eames St Albury	2640	Ph (02) 6041 3399	Fax (02) 6041 1820
Wollongong	40 Doyle Ave Unanderra	2526	Ph (02) 4272 6544	Fax (02) 4272 7563
Marayong	1/21 Binney Rd Marayong	2148	Ph (02) 9831 4431	Fax (02) 9671 1682
Melbourne	282-290 Greens Rd Dandenong	3175	Ph (03) 9767 5554	Fax (03) 9767 5555
Bayswater	4 Amsted Rd Bayswater	3153	Ph (03) 9739 8022	Fax (03) 9739 8033
Adelaide	1 Williams Cir Pooraka	5095	Ph (08) 8368 4554	Fax (08) 8368 4555
Brisbane	12-18 Limestone St Darra	4076	Ph (07) 3712 9554	Fax (07) 3712 9555
Townsville	9-11 Caldwell St Garbutt	4814	Ph (07) 4479 4800	Fax (07) 4725 1316
Perth	29-33 Gauge Cir Canningvale	6155	Ph (08) 9455 8672	Fax (08) 9455 8673
Kewdale	5 Beete St Welshpool	6106	Ph (08) 9350 9582	Fax (08) 9350 9683
Launceston	20 Murphy St Invermay	7248	Ph (03) 6334 3542	Fax (03) 6331 4001

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