

R100 Bearing steel

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|-------------------------------------|-------|------|--------------------|-----|--------------|-------|-------|
| 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 |

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| 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 |

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

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| 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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Notes