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|--|--|--|---|--|-------------------------------------|
| <p>E2</p> <p>E2 HIGH PRECISION TOOL MATERIAL</p> | <p>$\lambda = 40^\circ$ $Y = 18^\circ$</p> <p>CUTTING ANGLES $\approx 40^\circ$ / 18°</p> | <p>$\phi \leq 6$ $\phi > 6$</p> <p>90° 45°</p> <p>CHAMFER $\phi < 6$ $\phi > 6$ 90° / 45°</p> | <p>DUAL DIRECTION HELICAL DRILL BIT</p> | <p>h₁</p> <p>2.2xD</p> <p>2.2xD DEPTH FOR TOOLS</p> | <p>STANDARD TOOL WEAR INDICATOR</p> |
|--|--|--|---|--|-------------------------------------|

MATERIAL COMPATIBILITY

●●● Excellent (3/3) ●●○ Good (2/3) ●○○ Possible (1/3) ○○○ Not recommended

| MATERIAL | SPECIFICATION | GRP | 21105-8 |
|---|------------------------------|-----|---------|
| Alloyed and non-alloyed steels Non-alloyed steels | Rm < 450 N/mm ² | 1a | ○○○ |
| | Rm 450–700 N/mm ² | 1b | ○○○ |
| | Rm 700–900 N/mm ² | 1c | ○○○ |
| | Rm > 1200 N/mm ² | 1d | ○○○ |
| Stainless steels Stainless steels | Rm < 650 N/mm ² | 2a | ○○○ |
| | Rm 650–950 N/mm ² | 2b | ○○○ |
| | Rm > 950 N/mm ² | 2c | ○○○ |
| Hardened steels Hardened steels | 44–56 HRC | 3a | ○○○ |
| | 57–67 HRC | 3b | ○○○ |
| Exotic materials Special alloys | < 32 HRC | 4a | ○○○ |
| | > 32 HRC | 4b | ○○○ |
| Graphite Industrial graphite | | 5 | ●○○ |
| Cast iron Grey / nodular cast iron | < 32 HRC | 6a | ○○○ |
| | > 32 HRC | 6b | ○○○ |
| Titanium Titanium alloys | Rm < 600 N/mm ² | 7a | ○○○ |
| | 600 < Rm N/mm ² | 7b | ○○○ |
| Nickel alloys Inconel, Hastelloy | Rm < 1000 N/mm ² | 8a | ○○○ |
| | Rm > 1000 N/mm ² | 8b | ○○○ |
| Copper, brass, bronze Copper-based | Rm < 850 N/mm ² | 9a | ●●● |
| | Rm > 850 N/mm ² | 9b | ●●● |
| Aluminum Aluminum alloys | Si < 0.5% | 10a | ●●● |
| | 0.5% < Si < 5% | 10b | ●●○ |
| | Si > 5% | 10c | ○○○ |
| Synthetic materials Engineering plastics | Thermoplastic | 11a | ●●● |
| | Thermoset | 11b | ●●● |
| Composite materials Reinforced composites | Glass fiber / GFK | 12a | ●○○ |
| | Carbon fiber / KFK | 12b | ●○○ |
| Precious metals Gold, platinum, silver | Gold | 13a | ●●● |
| | Platinum | 13b | ○○○ |

TECHNICAL DRAWING



DIMENSIONS

NOMINAL DIMENSIONS

| | |
|----------------|-------|
| D (0 / -0.01) | 8 mm |
| d (h5) | 8 mm |
| L | 63 mm |
| l ₁ | 19 mm |
| l ₃ | – |
| d ₃ | – |
| R | – |
| e | – |
| Z | 4 |
| Chamfer K | 0.1 |
| w° collision | – |

