

|   |  |   |   |   |                                     |
|---|--|---|---|---|-------------------------------------|
| <p><b>E25 UF</b><br/>CARBIDE TOOL MATERIAL E25 UF</p> | <p><math>\lambda = 35^\circ</math><br/><math>\gamma = 10^\circ</math><br/>CUTTING ANGLES <math>\gamma 35^\circ / 10^\circ</math></p> | <p>angle vif<br/>ACUTE ANGLE PRECISION TOOL</p> | <p>DUAL DIRECTION HELICAL DRILL BIT</p> | <p>1.5xD<br/>1.5xD DEPTH PRECISION TOOL</p> | <p>STANDARD TOOL WEAR INDICATOR</p> |
|---|--|---|---|---|-------------------------------------|

## MATERIAL COMPATIBILITY

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

| MATERIAL  | SPECIFICATION                | GRP | 21031A-0.05 |
|---|------------------------------|-----|-------------|
| <b>Alloyed and non-alloyed steels</b><br>Non-alloyed steels | Rm < 450 N/mm <sup>2</sup>   | 1a  | ●●○         |
|   | Rm 450–700 N/mm <sup>2</sup> | 1b  | ●●○         |
|   | Rm 700–900 N/mm <sup>2</sup> | 1c  | ●●○         |
|   | Rm > 1200 N/mm <sup>2</sup>  | 1d  | ●○○         |
| <b>Stainless steels</b><br>Stainless steels                 | Rm < 650 N/mm <sup>2</sup>   | 2a  | ●●○         |
|   | Rm 650–950 N/mm <sup>2</sup> | 2b  | ●●○         |
|   | Rm > 950 N/mm <sup>2</sup>   | 2c  | ●○○         |
| <b>Hardened steels</b><br>Hardened steels                   | 44–56 HRC                    | 3a  | ○○○         |
|   | 57–67 HRC                    | 3b  | ○○○         |
| <b>Exotic materials</b><br>Special alloys                   | < 32 HRC                     | 4a  | ●○○         |
|   | > 32 HRC                     | 4b  | ●○○         |
| <b>Graphite</b><br>Industrial graphite                      |                              | 5   | ●●○         |
| <b>Cast iron</b><br>Grey / nodular cast iron                | < 32 HRC                     | 6a  | ●●○         |
|   | > 32 HRC                     | 6b  | ●●○         |
| <b>Titanium</b><br>Titanium alloys                          | Rm < 600 N/mm <sup>2</sup>   | 7a  | ●●○         |
|   | 600 < Rm N/mm <sup>2</sup>   | 7b  | ●●○         |
| <b>Nickel alloys</b><br>Inconel, Hastelloy                  | Rm < 1000 N/mm <sup>2</sup>  | 8a  | ●○○         |
|   | Rm > 1000 N/mm <sup>2</sup>  | 8b  | ●○○         |
| <b>Copper, brass, bronze</b><br>Copper-based                | Rm < 850 N/mm <sup>2</sup>   | 9a  | ●●○         |
|   | Rm > 850 N/mm <sup>2</sup>   | 9b  | ●●○         |
| <b>Aluminum</b><br>Aluminum alloys                          | Si < 0.5%                    | 10a | ●○○         |
|   | 0.5% < Si < 5%               | 10b | ●○○         |
|   | Si > 5%                      | 10c | ●○○         |
| <b>Synthetic materials</b><br>Engineering plastics          | Thermoplastic                | 11a | ○○○         |
|   | Thermoset                    | 11b | ○○○         |
| <b>Composite materials</b><br>Reinforced composites         | Glass fiber / GFK            | 12a | ●●○         |
|   | Carbon fiber / KFK           | 12b | ●●○         |
| <b>Precious metals</b><br>Gold, platinum, silver            | Gold                         | 13a | ●○○         |
|   | Platinum                     | 13b | ●○○         |

## TECHNICAL DRAWING



## DIMENSIONS

| NOMINAL DIMENSIONS |         |
|--------------------|---------|
| D (0 / -0.01)      | 0.05 mm |
| d (h5)             | 3 mm    |
| L                  | 38 mm   |
| l1                 | 0.08 mm |
| l3                 | –       |
| d3                 | –       |
| R                  | –       |
| e                  | –       |
| Z                  | 2       |
| Chamfer K          | –       |
| w° collision       | 13°     |

