

E2

E2 HIGH PRECISION TOOL MATERIAL

$\lambda=20^\circ$

20° LAMBDA CUTTING ANGLE



V-GROOVE CHAMFER TOOL SHAPE

MATERIAL COMPATIBILITY

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

| MATERIAL | SPECIFICATION | GRP | 48052-120-12 |
|--|------------------------------|-----|--------------|
| Alloyed and non-alloyed steels <small>Non-alloyed steels</small> | 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 <small>Stainless steels</small> | Rm < 650 N/mm ² | 2a | ●○ |
| | Rm 650–950 N/mm ² | 2b | ●○ |
| | Rm > 950 N/mm ² | 2c | ○○ |
| Hardened steels <small>Hardened steels</small> | 44–56 HRC | 3a | ○○ |
| | 57–67 HRC | 3b | ○○ |
| Exotic materials <small>Special alloys</small> | < 32 HRC | 4a | ○○ |
| | > 32 HRC | 4b | ○○ |
| Graphite <small>Industrial graphite</small> | | 5 | ●○ |
| Cast iron <small>Grey / nodular cast iron</small> | < 32 HRC | 6a | ○○ |
| | > 32 HRC | 6b | ○○ |
| Titanium <small>Titanium alloys</small> | Rm < 600 N/mm ² | 7a | ●○ |
| | 600 < Rm N/mm ² | 7b | ●○ |
| Nickel alloys <small>Inconel, Hastelloy</small> | Rm < 1000 N/mm ² | 8a | ○○ |
| | Rm > 1000 N/mm ² | 8b | ○○ |
| Copper, brass, bronze <small>Copper-based</small> | Rm < 850 N/mm ² | 9a | ●●● |
| | Rm > 850 N/mm ² | 9b | ●●● |
| Aluminum <small>Aluminum alloys</small> | Si < 0.5% | 10a | ●●● |
| | 0.5% < Si < 5% | 10b | ●●● |
| | Si > 5% | 10c | ●○ |
| Synthetic materials <small>Engineering plastics</small> | Thermoplastic | 11a | ●●● |
| | Thermoset | 11b | ●●● |
| Composite materials <small>Reinforced composites</small> | Glass fiber / GFK | 12a | ●○ |
| | Carbon fiber / KFK | 12b | ●○ |
| Precious metals <small>Gold, platinum, silver</small> | Gold | 13a | ●●● |
| | Platinum | 13b | ○○ |

TECHNICAL DRAWING



DIMENSIONS

| NOMINAL DIMENSIONS | |
|--------------------|-------|
| D (0 / -0.01) | 12 mm |
| d (h5) | 12 mm |
| L | 83 mm |
| l | 18 mm |
| l3 | – |
| d3 | – |
| R | – |
| e | – |
| Z | 2 |
| Chamfer K | – |
| w° collision | – |

