











## TTD2040220

**Type:** Short high-performance twist drill with coolant holes

| d1   | d2   | l1 | l2    |
|------|------|----|-------|
| 2,20 | 4,00 | 48 | 13,75 |

| Coolant holes | Cut   | Point angle | Spiral angle | Cutting edges Z |
|---------------|-------|-------------|--------------|-----------------|
| Yes           | Right | 140°        | 25°          | 2               |

| Coated | Coating type | Material | Material type | Norm |
|--------|--------------|----------|---------------|------|
| Yes    | TISINOS      | MD       | SMG SP        | TUSA |

| Machinable Materials |   |   |                  |                               |
|----------------------|---|---|------------------|-------------------------------|
| Cod.                 | Material type                                       | Machinability   | Cutting speed Vc | Advancement per revolution fn |
|                      |   | <b>Recommended</b><br>Part.<br>recommended <b>Not</b><br>recommended                | (m/min)          | (mm/rev)                      |
| <b>P01</b>           | Unalloyed steels up to 800 N/mm2                    |    | 45 : 75          | 0.23                          |
| <b>P02</b>           | Low alloy steels from 800 N/mm2 to 1100 N/mm2       |    | 40 : 70          | 0.22                          |
| <b>P03</b>           | Highly alloyed steels from 1100 N/mm2 to 1400 N/mm2 |    | 35 : 70          | 0.19                          |
| <b>M01</b>           | Ferritic stainless steels                           |    | 30 : 50          | 0.08                          |
| <b>M02</b>           | Martensitic stainless steels                        |    | 30 : 50          | 0.12                          |
| <b>M03</b>           | Martensitic stainless steels - PH                   |    | 30 : 50          | 0.06                          |
| <b>M04</b>           | Austenitic stainless steels                         |   | 20 : 40          | 0.06                          |
| <b>K01</b>           | Gray/lamellar cast iron                             |  | 20 : 60          | 0.35                          |
| <b>K02</b>           | Nodular/nodular cast iron                           |  | 15 : 40          | 0.35                          |
| <b>N01</b>           | Drawn aluminum alloys                               |  | 100 : 300        | 0.13                          |
| <b>N02</b>           | Die-cast aluminum alloys                            |  | 80 : 250         | 0.15                          |
| <b>N03</b>           | Copper  |  | 60 : 120         | 0.13                          |
| <b>N04</b>           | Brass - Bronze                                      |  | 80 : 140         | 0.15                          |
| <b>N05</b>           | Lead-free brass                                     |  | 80 : 140         | 0.17                          |
| <b>S01</b>           | Super alloys (Inconel - Hastelloy - Nimonic)        |  | 15 : 25          | 0.023                         |
| <b>S02</b>           | Pure titanium (Grade 2 - Grade 4)                   |  | 15 : 25          | 0.09                          |
| <b>S03</b>           | Titanium alloys (Grade 5)                           |  | 15 : 30          | 0.09                          |
| <b>S04</b>           | Cobalt Chrome Alloys                                |  | 15 : 30          | 0.032                         |
| <b>H01</b>           | Hardened steels up to 55 HRC                        |  | 20 : 40          | 0.023                         |
| <b>H02</b>           | Hardened steels from 55 HRC                         |  | -                | -                             |