

# Summary of Insert Grades

A  
Insert Grades

## Insert Selection Table

| Applications |        | Cutting Range                          | P<br>Steel | M<br>Stainless Steel | K<br>Gray Cast Iron<br>Nodular Cast Iron | N<br>Non-ferrous Metals | S<br>Heat-Resistant Alloys | Titanium Alloys | H<br>Hard Materials | Sintered Steel |        |
|--------------|--------|--|------------|----------------------|--|-------------------------|----------------------------|-----------------|---------------------|----------------|--------|
| Turning      |        | Finishing<br>↑<br>↓                    | TN6010     | TN60                 | KA30                                     | TN60                    |                            |                 | A65                 |                |        |
|              |        |  | TN60       | TN60                 | KA30                                     | TN60                    |                            |                 | A66N                |                |        |
|              |        |  | TN6020     | PV7020               | KS6000                                   | PV7005                  |                            | CF1             | PT600M              | TN6010         |        |
|              |        |  | PV7010     | CA6515               | PV7005                                   | CA5505                  | KPD001                     | KW10            | KPD001              | KBN510         | TN60   |
|              |        |  | PV7020     | CA5525               | CA5505                                   | CA4115                  | KPD010                     | CA6515          | KPD010              | KBN525         | PR930  |
|              |        |  | CA5505     | CA5535               | CA4010                                   | CA4120                  | KW10                       | CA6525          | KW10                | KBN05M         | KBN65M |
|              |        |  | CA5515     | CA6525               | CA4505                                   | CA4515                  |                            | PR1125          |                     | KBN10M         | KBN65M |
|              |        |  | CA5525     | PR1125               | KBN60M                                   |                         |                            | PR660           |                     | KBN25M         | KBN70M |
|              |        |  | CA5535     | PR660                |  |                         |                            |                 |                     | KBN30M         |        |
|              |        |  | CA5535     | PR660                |  |                         |                            |                 |                     | KBN35M         |        |
|              |        |  |            |                      |  |                         |                            | KBN900          |                     |                |        |
| Small Tools  |        | High Vc<br>↑<br>↓<br>Low Vc            | TN6010     | TN6020               |  |                         |                            |                 | KBN510              |                |        |
|              |        |  | TN60       | PV7020               | CA4505                                   |                         |                            |                 | KBN525              | TN6010         |        |
|              |        |  | TN6020     | CA6515               | CA4010                                   | CA4515                  | KPD001                     | CA6515          | KPD001              | KBN510         | TN6010 |
|              |        |  | PV7010     | CA6515               | CA4010                                   | CA4115                  | KPD010                     | PR1125          | KPD010              | KBN525         | TN60   |
|              |        |  | PV7020     | CA6525               | CA4115                                   | CA4115                  | KPD010                     | PR1125          | KPD010              | KBN05M         | PR930  |
|              |        |  | CA5515     | PR1005               | CA4120                                   | CA4120                  | KW10                       | PR660           | KW10                | KBN10M         | PR930  |
|              |        |  | CA5525     | PR930                | KW10                                     | KW10                    |                            |                 |                     | KBN25M         | KBN65M |
|              |        |  | PR930      | PR1025               |  |                         |                            |                 |                     | KBN30M         | KBN70M |
|              |        |  | PR1025     |                      |  |                         |                            |                 |                     |                |        |
|              |        |  |            |                      |  |                         |                            |                 |                     |                |        |
| Boring       |        | Wear Resistance<br>↑<br>↓<br>Toughness | TN6010     | TN60                 |  |                         |                            |                 | PT600M              |                |        |
|              |        |  | TN60       | TN60                 |  |                         |                            |                 | KBN510              | TN6010         |        |
|              |        |  | TN6020     | PV7020               | PV7005                                   |                         |                            |                 | KBN525              | TN60           |        |
|              |        |  | PV7010     | CA6515               | CA4010                                   | PV7005                  |                            |                 | KBN05M              | PR930          |        |
|              |        |  | PV7020     | CA5525               | CA4505                                   | CA4115                  | KPD001                     | CA6515          | KPD001              | KBN10M         | KBN65M |
|              |        |  | CA5515     | CA6525               | CA4115                                   | CA4515                  | KPD010                     | CA6525          | KPD010              | KBN25M         | KBN70M |
|              |        |  | CA5525     | PR930                | CA4120                                   | CA4120                  | KW10                       | PR1125          | KW10                | KBN30M         |        |
|              |        |  | CA5535     | PR1125               | KW10                                     | KW10                    |                            | PR660           |                     |                |        |
|              |        |  | PR930      | PR1025               | KBN60M                                   |                         |                            |                 |                     |                |        |
|              |        |  | PR1025     |                      |  |                         |                            |                 |                     |                |        |
| Cut-off      |        | Large<br>↑<br>↓<br>Small               | CR9025     | CR9025               |  |                         |                            |                 |                     |                |        |
|              |        |  | PR660      | PR660                | KW10                                     | KW10                    | KW10                       | KW10            | KW10                |                |        |
|              |        |  | PR930      | PR930                |  |                         |                            | PR660           |                     |                |        |
| Cut-off      |        | (Depends on the workpiece material)    | PR1025     | PR1025               | KW10                                     | KW10                    | KW10                       | KW10            |                     |                |        |
|              |        |  |            |                      |  |                         |                            | PR1025          |                     |                |        |
| Grooving     |        | Wear Resistance<br>↑<br>↓<br>Toughness | TC40       | TC40                 |  |                         |                            |                 | KBN510              |                |        |
|              |        |  | TN6020     | TN6020               |  |                         |                            |                 | KBN525              | TC40N          |        |
|              |        |  | TN90       | TN90                 |  |                         |                            |                 | PT600M              | PR930          |        |
|              |        |  | TC60       | TC60                 | PR905                                    | PR905                   | KPD001                     | PR915           | KPD001              |                |        |
|              |        |  | PR630      | PR630                | KW10                                     | KW10                    | KW10                       | KW10            | KW10                |                |        |
|              |        |  | PR915      | PR915                | GW15                                     | GW15                    |                            |                 |                     |                |        |
|              |        |  | PR930      | PR930                |  |                         |                            |                 |                     |                |        |
| PR1115       | PR1115 |  |            |                      |  |                         |                            |                 |                     |                |        |
| Threading    |        | Wear Resistance<br>↑<br>↓<br>Toughness | TC60       | TC60                 |  |                         |                            |                 |                     |                |        |
|              |        |  | PR630      | PR630                |  |                         |                            |                 |                     |                |        |
|              |        |  | PR930      | PR930                | KW10                                     | KW10                    | KW10                       | KW10            | KW10                | PR930          |        |
|              |        |  | PR1115     | PR1115               | GW15                                     | GW15                    |                            |                 |                     |                |        |
| Drilling     |        | Wear Resistance<br>↑<br>↓<br>Toughness | PR930      |                      |  |                         |                            |                 |                     |                |        |
|              |        |  | PR730      | PR730                | PR510                                    | PR510                   |                            | PR660           |                     |                |        |
|              |        |  | PR830      | PR830                | PR905                                    | PR905                   | KW10                       | PR1025          | KW10                |                |        |
|              |        |  | PR915      | PR915                | PR1210                                   | PR1210                  |                            | PR1230          |                     |                |        |
|              |        |  | PR1025     | PR1025               | KW10                                     | KW10                    |                            | KW10            |                     |                |        |
|              |        |  | PR1230     | PR1225               |  |                         |                            | GW15            |                     |                |        |
|              |        |  | PR660      | PR660                |  |                         |                            |                 |                     |                |        |
| Milling      |        | Finishing<br>↑<br>↓<br>Roughing        | TN100M     |                      |  |                         |                            |                 |                     |                |        |
|              |        |  | PR630      | PR630                |  |                         | KPD001                     | PR630           | KPD001              |                |        |
|              |        |  | PR730      | PR730                | PR905                                    | PR905                   | KPD010                     | PR730           | KPD010              |                |        |
|              |        |  | PR830      | PR830                | KW10                                     | KW10                    | KW10                       | PR830           | KW10                |                |        |
|              |        |  | PR1025     | PR1025               |  |                         | GW25                       | PR1025          |                     |                |        |
|              |        |  | PR660      | PR660                |  |                         |                            | PR660           |                     |                |        |

• Highlighted materials are recommended choices.