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PVD Coating Recommendations

| Workpiece Material | Applications | | | | | | | | | | |
|---|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|----------------|
| | Drilling | Turning | Milling | Tapping | Reaming | Broaching | Stamping | Deep Drawing | Forming | Injection Molding | |
| Steel- general types | TiAlN ● AlTiN ▾ | TiAlN ● AlTiN ▾ | TiAlN ● TiCN-MP ▮ | TiCN-MP ▮ TiN ■ | TiAlN ● TiCN-MP ▮ | TiCN-MP ▮ TiN ■ | TiCN-MP ▮ TiN ■ | TiCN-MP ▮ TiN ■ | TiCN-MP ▮ TiN ■ | TiCN-MP ▮ TiN ■ | TiN ■ CrN ◂ |
| Highly alloyed steel • Stainless Steel (SS) • Super-Alloys (Ni-Based) | TiAlN ● AlTiN ▾ | TiAlN ● AlTiN ▾ | AlTiN ▾ TiAlN ● | TiCN-MP ▮ TiAlN ● | TiAlN ● TiCN-MP ▮ | TiCN-MP ▮ TiAlN ● | TiCN-MP ▮ TiN ■ | TiCN-MP ▮ TiN ■ | TiCN-MP ▮ TiN ■ | TiCN-MP ▮ TiN ■ | TiN ■ CrN ◂ |
| Mg-Alloys | TiAlN ● AlTiN ▾ | TiAlN ● AlTiN ▾ | AlTiN ▾ TiAlN ● | TiCN-MP ▮ TiAlN ● | TiAlN ● TiCN-MP ▮ | TiCN-MP ▮ TiAlN ● | TiCN-MP ▮ TiN ■ | TiCN-MP ▮ TiN ■ | TiCN-MP ▮ TiN ■ | TiCN-MP ▮ TiN ■ | TiN ■ CrN ◂ |
| Cast Iron | TiAlN ● AlTiN ▾ | TiAlN ● AlTiN ▾ | TiAlN ● TiCN-MP ▮ | TiAlN ● TiCN-MP ▮ | TiAlN ● TiCN-MP ▮ | TiAlN ● TiCN-MP ▮ | | | | | |
| Ti-Alloys | ZrN ▲ | ZrN ▲ | ZrN ▲ | ZrN ▲ | ZrN ▲ | ZrN ▲ | ZrN ▲ | ZrN ▲ | ZrN ▲ | ZrN ▲ | TiN ■ CrN ◂ |
| Al-Alloys | ZrN ▲ CBC ◆ | ZrN ▲ CBC ◆ | ZrN ▲ CBC ◆ | ZrN ▲ CBC ◆ | ZrN ▲ CBC ◆ | ZrN ▲ CBC ◆ | ZrN ▲ CBC ◆ | ZrN ▲ CBC ◆ | ZrN ▲ CBC ◆ | ZrN ▲ CBC ◆ | TiN ■ CrN ◂ |
| Copper | CrN ◂ | CrN ◂ | CrN ◂ | CrN ◂ | CrN ◂ | CrN ◂ | CrN ◂ | CrN ◂ | CrN ◂ | CrN ◂ | CrN ◂ |
| Brass / Bronze | TiCN ▮ TiCN-MP ▮ | TiCN ▮ TiCN-MP ▮ | TiCN ▮ TiCN-MP ▮ | TiCN ▮ TiCN-MP ▮ | TiCN ▮ TiCN-MP ▮ | TiCN ▮ TiCN-MP ▮ | TiCN ▮ TiCN-MP ▮ | TiCN ▮ TiCN-MP ▮ | TiCN ▮ TiCN-MP ▮ | TiCN ▮ TiCN-MP ▮ | CrN ◂ TiN ■ |
| Plastics | TiN ■ TiCN-MP ▮ | TiAlN ● AlTiN ▾ | TiAlN ● | TiN ■ | | | | | | | TiN ■ CrN ◂ |