

MATERIAL COATABILITY REFERENCE SHEET

TOOL STEELS

I A-Series – Air Hardening

- A2, A3, A7, A8, A9
 - PVD: Will coat. Material must be tempered above 950 degree F to avoid potential loss of Rockwell (R/C) hardness and size change.
 - CVD: No guarantee on coating adhesion.

- A4, A6, A10
 - PVD: Will coat. Significant Rockwell (R/C) loss and size change may occur.
 - CVD: No guarantee on coating adhesion.

II D- Series -- High Carbon / High Chromium

- D2, D4, D5, D7
 - PVD: Will coat. Material must be tempered above 950 degree F to avoid potential loss of Rockwell (R/C) hardness and size change.
 - CVD: Coatable.

- D3
 - PVD: Will coat. Material must be tempered above 950 degree F to avoid potential loss of Rockwell (R/C) hardness and size change.
 - CVD: Not coatable.

III H-Series -- Hot Work

- H10, H11, H12, H13, H14, H19, H21, H22, H23, H24, H25, H26, H42
 - PVD: Coatable
 - CVD: Coatable

IV L-Series -- Low Alloy

- L2, L6
 - PVD: Will coat. Significant Rockwell (R/C) loss and size change may occur.
 - CVD: Not coatable.

V M-Series – Molybdenum High Speed

- M1, M2, M3I, M3II, M4, M6, M7, M10, M30, M33, M34, M36, M41, M42, M43, M44, M46, M47
 - PVD: Coatable
 - CVD: Coatable

VI O-Series – Oil Hardening

- O1, O2, O6, O7
 - PVD: Will coat. Significant Rockwell (R/C) loss and size change may occur.
 - CVD: Not coatable.

VII P-Series – Mold Steels

- P2, P3, P4, P5, P6, P20, P21
 - PVD: Will coat. Significant Rockwell (R/C) loss and size change may occur.
 - CVD: Not coatable.

VIII S-Series – Shock-Resisting

- S1, S2, S5, S6
 - PVD: Will coat. Significant Rockwell (R/C) loss and size change may occur.
 - CVD: Not coatable.
- S7
 - PVD: Will coat. Significant Rockwell (R/C) loss and size change may occur.
 - CVD: No guarantee on coating adhesion.

IX T-Series – Tungsten High Speed

- T1, T2, T4, T5, T6, T8, T15
 - PVD: Coatable
 - CVD: Coatable

X W-Series – Water Hardening

- W1, W2, W5
 - PVD: Will coat. Significant Rockwell (R/C) loss and size change may occur.
 - CVD: Not coatable.

CARBON AND ALLOY STEELS

I Nonresulturized -- 1000 Series

- PVD: Will coat. No hardness will be maintained and size change may occur.
- CVD: Not coatable.

II Resulturized -- 1100 Series

- PVD: Will coat. No hardness will be maintained and size change may occur.
- CVD: Not coatable.

III Rephosphorized and Resulturized – 1200 Series

- PVD: Will coat. Significant Rockwell (R/C) loss and size change may occur.
- CVD: Not coatable.

IV High Manganese – 1500 Series

- PVD: Will coat. Significant Rockwell (R/C) loss and size change may occur.
- CVD: Not coatable.

V Alloy Steels – 1300 – 9700 Series

- PVD: Will coat. Significant Rockwell (R/C) loss and size change may occur.
- CVD: Not coatable.

STAINLESS STEELS

I Austenitic Grades – 200 and 300 Series

- PVD: Coatable
- CVD: Coatable

II Ferritic Grades

- 405, 409, 429, 430, 430F, 430fse, 434, 436, 442, 446
 - PVD: Coatable
 - CVD: Coatable

III Martensitic Grades

- 403, 410, 414, 416, 416Se, 420, 420F, 422, 431
 - PVD: Will coat. Material must be tempered above 900 degree F to avoid potential Rockwell (R/C) loss and size change.
 - CVD: No guarantee on coating adhesion.
- 440A, 440B, 440C
 - PVD: Will coat. Material must be tempered above 900 degree F to avoid potential Rockwell (R/C) loss and size change.
 - CVD: Coatable.

IV Precipitation Hardening Grades – 600 Series

- Call for technical information.

V Casting Grades

- Call for technical information.