

## Tool Steel Color Code Chart for Grade Identification

The colour painted on the bar end to keep one tool steel grade out of another grade's rack, with the AISI and SAE numbering system that sits behind it, from a tool and die shop handbook. A reference summary of published practice and not an Aobo Steel specification.

**Reference only.** The colours in this chart are reproduced from the source named at the foot of the sheet. Colour schemes are set by each mill and distributor and are not interchangeable, so the sheet is a reference summary rather than a specification of ours, and it carries no tolerances. Use the scheme that came with your material, and treat the colour as a rack check only: it does not identify a grade on its own.

### Colour code used to mark tool steel grades

Source, Table 5-1, colour coding scheme for various tool steels, printed page 70 of Tool and Die Making Troubleshooter (Richard M. Leed), PDF page 87 of the copy consulted.

| AISI grade | Colour used on the bar end |
|------------|----------------------------|
| A2         | Blue                       |
| D2         | White                      |
| H13        | Black                      |
| H13 SMQ    | Black and white            |
| M2         | Purple                     |
| O1         | Brown                      |
| S7         | Red                        |
| S7 SMQ     | Yellow                     |
| S5         | Pink                       |
| W1         | Green                      |
| 4140 PH    | Orange                     |
| 1018 CRS   | Gold                       |
| 410 SS     | Grey                       |
| 420 SS     | Blue and red               |

The colour is painted on the sawn end of the bar or on the surface near the end. SMQ in the table is the mill's special quality marking; the same grade in that condition carries a different colour from the standard condition. 4140 PH, 1018 CRS, 410 SS and 420 SS appear in the scheme because they are stocked beside tool steel in the same rack. One mill's colour scheme is not another mill's, so the code is only usable together with the supplier's own list and the certificate that came with the bar.

Two grades that look alike in the rack harden differently, and the mistake is usually found after the heat treatment, when the part has already been machined. A grade mixed into the wrong job comes out undersized, cracked or soft, and what is lost is the tool rather than the bar. Colour marking exists to make that mix-up visible before the cut.

### Aobo Steel, tool steel supplier

Aobo Steel supplies tool steel to distributors and mold, tool and die shops, including D2, D3, O1, A2, S7, H13, H11, H10, H21, M2, M42, L6, P20 and 420 and 440C stainless. Forged or hot rolled, annealed or pre-hardened, cut to your sizes, with test certificates.

Compiled from Tool and Die Making Troubleshooter (Richard M. Leed), the colour coding scheme on printed page 70 and the discussion of AISI and SAE numbering on printed pages 69 to 71. The codes are reproduced from the published table and are a reference summary rather than an Aobo Steel specification; colour schemes are set by each mill and distributor, so use the scheme that came with your material.

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