

Tin Mill Products: Typical Mechanical Properties

The table below lists “typical” mechanical properties for the different Tempers of Tin Mill Products. Tin Mill Products are produced to meet the specifications called out by the ASTM, Euronorm or JIS standards. Steel mills generally will not, with a few exceptions, guarantee mechanical properties for Tin Mill Products.

| <u>Temper*</u> | <u>P.S.I. Yield Strength</u> | <u>P.S.I. Tensile Strength</u> | <u>% Total Elongation</u> | <u>Rockwell 30-T Scale</u> | <u>R Value</u> |
|----------------|------------------------------|--------------------------------|---------------------------|----------------------------|----------------|
| B.A. T1 | 26,000 to 40,000 | 42,000 to 56,000 | 28% to 38% | 45 to 53 | 1.5 |
| B.A. T2 | 30,000 to 44,000 | 44,000 to 58,000 | 25% to 35% | 49 to 57 | 1.4 |
| B.A. T3 | 33,000 to 47,000 | 47,000 to 61,000 | 23% to 33% | 53 to 61 | 1.3 |
| C.A. T4 | 47,000 to 61,000 | 61,000 to 69,000 | 17% to 27% | 57 to 65 | 1.1 |
| C.A. T5 | 53,000 to 67,000 | 57,000 to 71,000 | 15% to 25% | 61 to 69 | 1.1 |
| B.A. DR8 | --- | 72,000 to 84,000 | 3% | 72 Nominal | 1.2 |
| C.A. DR8 | --- | 76,000 to 88,000 | 2% | 73 Nominal | 1.1 |
| C.A. DR9 | --- | 82,000 to 94,000 | 1% | 75 Nominal | 1.1 |

*B.A. = Batch Annealed

*C.A. = Continuous Annealed

Yield Strength = the amount of pull on the metal before it permanently stretches(begins to form).

Tensile Strength = the amount of pull on the metal when it breaks.

% Elongation = the percent change in length when the material is pulled/stretched and broken into two pieces.

Rockwell 30-T scale measures superficial hardness only.

R Value = the materials ability to both stretch and compress without either cracking or wrinkling.

Berlin Metals LLC
ISO/TS 16949:2002 Certified

Email: Sales@BerlinMetals.com • Phone: 800/SLIT TMP* (754-8867) • Fax: 219/933-0692
 3200 Sheffield Avenue • Hammond, Indiana 46327