

PENTON

Spring Steel Strip

BS 1449: Part 1: 1991: CS80



Coils Hardened, Tempered and Polished

Dressed Edges Imperial (ins)

| | | | | | | |
|-------------|-------------|-------------|-------------|-----------|---------------|---------------|
| 3/8" x .010 | 1/2" x .010 | 5/8" x .010 | 3/4" x .010 | 1" x .010 | 1 1/4" x .010 | 1 1/2" x .010 |
| | 1/2" x .018 | 5/8" x .018 | 3/4" x .015 | 1" x .015 | 1 1/4" x .015 | 1 1/2" x .015 |
| | 1/2" x .022 | 5/8" x .022 | 3/4" x .020 | 1" x .020 | 1 1/4" x .020 | 1 1/2" x .020 |

Coils Annealed

Sheared Edges Imperial (ins)

| | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 4" x .015 | 4" x .020 | 4" x .024 | 4" x .028 | 4" x .032 | 4" x .036 | 4" x .048 | 4" x .064 |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|

Chemical Composition

| | |
|-----------|------------|
| | percentage |
| C | 0.75-0.85 |
| Mn | 0.50-0.90 |
| Si | 0.05-0.35 |
| S | 0.045 max. |
| P | 0.045 max. |

Characteristics

Complying with the requirements of BS 1449: CS 80 and BS 970: 070A78 (En42) Penton spring steel strip is cold rolled, oil hardened and tempered, it has a polished finish and the edges are dressed. Sheared edge annealed strip is also stocked.

Typical Applications

Springs, guide strips, where the parts do not require severe forming or bending. Annealed spring steel can be used for similar applications but where severe bending is involved, prior to hardening and tempering.

Tolerances

| Thickness | Tolerance +/- |
|--|---------------|
| Up to and including 0.015" | 0.0010" |
| Over 0.015" Up to and including 0.024" | 0.0012" |
| Over 0.024" Up to and including 0.039" | 0.0014" |
| Over 0.039" Up to and including 0.048" | 0.0016" |
| Over 0.048" Up to and including 0.062" | 0.0018" |

Form of Supply

Coils: Supplied to the required length or weight.

Hardened & Tempered:

<0.020" thick 450/500 VPN
 ≥0.020" thick 400/450 VPN

Annealed:

<0.036" thick 185 VPN max.
 ≥0.036" thick 195 VPN max.

Heat Treatment

Annealed spring steel can be hardened and tempered using the following temperatures.

Hardening: 800-840°C quench in oil.

Tempering: 250-350°C depending on hardness required.

Engineering Plastic Bar

Macreadys supply a range of machining quality engineering plastic products as shown opposite:

Nylon 6, Nylon 66, Acetal, Delrin, Polypropylene, Polyvinyl Chloride (P.V.C.)

Available in 3 metre lengths in round, square and hexagonal section, the above products can also be supplied in sheets, tubes or blocks.

A complete cutting service is provided.