

Thalachrome SE 120

IMPROVED CORROSION RESISTANCE
DIAMETER 16 - 160 MM

STEEL GRADES

C45E | C35E | 20MnV6 | 20MnV6X | 38MnVS6 | 38MnVS6X | 42CrMo4V

CHEMICAL ANALYSIS

| Elements | C (%) | Si (%) | Mn (%) | S (%) | P (%) | V (%) | Cr (%) | Mo (%) | Ni (%) | N (%) | WERKSTOFF |
|------------------|-----------|-----------|-----------|---------|---------|-----------|-----------|-----------|--------|-------------|-----------|
| C45E | 0.42-0.50 | ≤ 0.40 | 0.50-0.80 | ≤ 0.035 | ≤ 0.035 | - | ≤ 0.40 | ≤ 0.10 | ≤ 0.40 | - | 1.1191 |
| C35E | 0.32-0.39 | ≤ 0.40 | 0.50-0.80 | ≤ 0.035 | ≤ 0.035 | - | ≤ 0.40 | ≤ 0.10 | ≤ 0.40 | - | 1.1181 |
| 20MnV6-20MnV6X | 0.16-0.22 | 0.10-0.50 | 1.30-1.70 | ≤ 0.035 | ≤ 0.035 | 0.08-0.20 | - | - | - | - | 1.5217 |
| 38MnVS6-38MnVS6X | 0.34-0.41 | 0.15-0.80 | 1.20-1.60 | ≤ 0.035 | ≤ 0.025 | 0.08-0.20 | ≤ 0.30 | ≤ 0.08 | - | 0.010-0.020 | 1.1303 |
| 42CrMo4V | 0.38-0.45 | ≤ 0.40 | 0.60-0.90 | ≤ 0.035 | ≤ 0.035 | - | 0.90-1.20 | 0.15-0.30 | - | - | 1.7225 |

For steel grades C45E and C35E : Cr + Mo + Ni ≤ 0.63%

MECHANICAL PROPERTIES

| Steel grade | Range Ø (mm) | Yield point (N/mm ²) | Tensile strength (N/mm ²) | Elongation % | PSI |
|-------------|---------------|----------------------------------|---------------------------------------|--------------|---------|
| C45E | Ø 16 | ≥ 340 | ≥ 620 | ≥ 10 | 45 000 |
| | 18 ≤ Ø ≤ 95 | ≥ 305 | 580 - 850 | ≥ 16 | 45 000 |
| | 95 < Ø ≤ 160 | ≥ 275 | 560 - 800 | ≥ 16 | 40 000 |
| C35E | 16 ≤ Ø ≤ 36 | ≥ 315 | 560 - 750 | ≥ 18 | 45 000 |
| | 36 < Ø ≤ 160 | ≥ 275 | 560 - 760 | ≥ 19 | 40 000 |
| 20MnV6 | 16 | ≥ 450 | 550 - 850 | ≥ 10 | 65 000 |
| | 18 ≤ Ø < 20 | ≥ 450 | 550 - 850 | ≥ 17 | 65 000 |
| | 20 ≤ Ø ≤ 65 | ≥ 450 | 550 - 850 | ≥ 18 | 65 000 |
| 20MnV6X | 65 < Ø ≤ 160 | ≥ 390 | 530 - 850 | ≥ 21 | 55 000 |
| | 18 ≤ Ø ≤ 70 | ≥ 520 | 650 - 800 | ≥ 19 | 75 000 |
| | 71 ≤ Ø ≤ 90 | ≥ 520 | 650 - 800 | ≥ 21 | 75 000 |
| 38MnVS6 | 91 ≤ Ø ≤ 130 | ≥ 440 | 550 - 750 | ≥ 21 | 64 000 |
| | 20 ≤ Ø ≤ 160 | ≥ 520 | 800 - 950 | ≥ 12 | 75 000 |
| 38MnVS6X | 25 ≤ Ø ≤ 125 | ≥ 580 | 850 - 1000 | ≥ 14 | 84 000 |
| 42CrMo4V | 18 ≤ Ø ≤ 40 | ≥ 750 | 1000 - 1200 | ≥ 11 | 100 000 |
| | 41 ≤ Ø ≤ 100 | ≥ 650 | 900 - 1100 | ≥ 12 | 95 000 |
| | 101 ≤ Ø ≤ 125 | ≥ 550 | 800 - 950 | ≥ 13 | 80 000 |

TOLERANCE

- Ø 16 to 19.05 mm : f8
- Ø 20 to 160 mm : f7

CHROME THICKNESS

- Ø 16 to 18 : 20 µm mini
- Ø 19.05 to 160 mm : 25 µm mini

CHROMIUM PLATING

- Hardness : 900 Hv_{0.1} min
- Microcracking : 5000 microcracks /mm² mini

SURFACE ROUGHNESS

- Ra : 0.07 to 0.20 µm
- Ry : 2.5 µm maxi

STRAIGHTNESS

- 0.2 mm/m maxi

STANDARD LENGTH

- 4,5 - 7,8 m

CORROSION RESISTANCE

Neutral salt spray test according to ISO 9227 - Evaluation according to ISO 10289 :

Acetic spray test according to ISO 9227 - Evaluation according to ISO 10289 :

Rating 10 (no point of rust)

168h00 mini NSS rating 10

Rating 9 (less than 0.1 % of the surface corroded)

504h00 mini NSS rating 9

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Rating 9 (less than 0.1 % of the surface corroded)

72h00 ASS