

BÖHLER DMO Kb T-FD

Flux cored wire, seamless, creep resistant, basic type

| Classifications | | | | |
|-------------------|------------------|--------------------|-----------------|--|
| EN ISO 17632-A | EN ISO 17632-B | EN ISO 17634-A | EN ISO 17634-B | |
| T46 6 Mo B M 3 H5 | T556T5-0M-2M3-H5 | T Mo B M 3 H5 | T55T5-0M-2M3-H5 | |
| AWS A5.36 | | AWS A5.36M | | |
| E80T5-M21P8-A1-H4 | | E550T5-M21P6-A1-H4 | | |

Characteristics and typical fields of application

Seamless, Molybdenum alloyed, basic wire for single- or multilayer welding in boiler, pressure vessel, pipeline and steel construction, preferably for creep resistant steel qualities with 0.5% Mo up to 500° C with Ar-CO₂ shielding gas.

Features include: excellent impact values at low temperatures (-60°C) in as welded conditions and after long post weld heat treatments (620°C / 15h) with low spatter losses. Wire with very low amount of diffusible hydrogen in weld metal (<1.5ml/100g) that reduces the risk of cracks.

Base materials

16Mo3, S235JR-S355JR, P195TR1-P265TR1, L245NB-L415NB, L450QB, L245MB-L450MB, GE200-GE300

ASTM A 29 Gr, 1016; A 106 Gr. A, B; A 182 Gr. F1; A 234 Gr. WP1; A 283 Gr., C, D; A 335 Gr. P1; A 501 Gr. B; A 510 Gr. 1013; A 512 Gr. 1021, 1026; A 513 Gr. 1021, 1026; A 711 Gr. 1013; API 5 L B, X42, X52, X60, X65

| Typical analysis of all-weld metal (wt%) | | | | | |
|--|-----|------|------|------|------|
| | Gas | С | Si | Mn | Мо |
| wt-% | M21 | 0.08 | 0.35 | 1.00 | 0.50 |

| Mechanical properties of all-weld metal | | | | | | |
|---|----------------------------------|---------------------------------|---|---------------------------|-------|------------------|
| Condition | Yield strength R _{p0.2} | Tensile strength R _m | Elongation A (L ₀ =5d ₀) | Impact work ISO-V KV J | | |
| | MPa | MPa | % | +20°C | -40°C | -60°C |
| u | 520 (≥470) | 600 (550–680) | 24 (≥22) | 210 | 150 | 130 (≥47) |
| S | 490 (≥470) | 580 (550–680) | 26 (≥22) | 190 | 140 | 120 (≥47) |

u untreated, as welded – shielding gas M21 s annealed 620°C / 3h – shielding gas M21

Operating data



| Shielding gas: | ø (mm) |
|--------------------|--------|
| (EN ISO 14175) M21 | 1.2 |
| | 1.4 |
| | 1.6 |
| | ~ ~ ~ |

Welding with standard GMAW-facilities possible

Preheating, interpass temperature and psot weld heat treatment as required by the base metal. For heavy walled components an interpass temperature to a min. 150°C recommended. Final PWHT should be carried out between 560°C to 620°C for a minimum of 1 hour.

Approvals

TÜV(12577), CE