



LOTHERME



LoTherme - 532

Basic coated Tin-bronze electrodes with 6% tin.

Characteristics :

LoTherme-532 is distinguished by good welding properties. With steady arc and low spatter losses it gives dense, pore-less seams. The slag is easily removed.

Applications:

LoTherme-532 for joining copper and copper alloys, phosphorus and tin-bronzes as well as copper-clad plates in mechanical and plant engineering and ship building. For surfacing on copper and copper alloys, phosphorus and tin-bronzes.

Typical Mechanical Properties Of All Weld Metal:

| | | |
|---------------------------|---|------------------------|
| ULTIMATE TENSILE STRENGTH | : | 32 Kgf/mm ² |
| ELONGATION (L=4d) | : | 30 % |

Welding Instructions:

Seam preparation with large V angle (80-90°). Electrode guided vertical, arc 3-4 mm. Only work-pieces more than 5 mm need preheating up to 100 - 250°C. Bronze castings must be cooled slowly. Electrodes that have got damp must be dried 2 to 3 hours at 150°C.

Current Conditions : DC(+)

| | | | | |
|---------------|---------|---------|----------|---------|
| Size (mm) | 5x350 | 4x350 | 3.15x350 | 2.5x350 |
| Dia x Length | | | | |
| Current Range | 130-160 | 100-130 | 80-100 | 60-90 |
| (Amps) | | | | |

LoTherme - 533

Tin-bronze electrodes with 6% tin for welding with AC machines.

Characteristics :

LoTherme-533 is distinguished by good welding properties. With steady arc and low spatter losses it gives dense, pore-less seams. The slag is easily removed.

Applications:

LoTherme-533 for joining copper and copper alloys, phosphorus and tin-bronzes as well as copper-clad plates in mechanical and plant engineering and ship building. For surfacing on copper and copper alloys, phosphorus and tin-bronzes.

Typical Mechanical Properties Of All Weld Metal:

| | | |
|---------------------------|---|-----------------------|
| ULTIMATE TENSILE STRENGTH | : | 32 Kg/mm ² |
| ELONGATION (L=4d) | : | 30 % |

Welding Instructions:

Seam preparation with large V angle (80-90°). Electrode guided vertical, arc 3-4 mm. Only work-pieces more than 5 mm need preheating up to 100 - 250°C. Bronze castings must be cooled slowly. Electrodes that have got damp must be dried 2 to 3 hours at 150°C.

Current Conditions : DC(+)

| | | | | |
|---------------|---------|---------|----------|---------|
| Size (mm) | 5x350 | 4x350 | 3.15x350 | 2.5x350 |
| Dia x Length | | | | |
| Current Range | 160-200 | 120-160 | 80-120 | 60-90 |
| (Amps) | | | | |



LoTHERME



LoTherme - 534

Aluminium Bronze electrode for sea water corrosion resistance.

Characteristics :

LoTherme-534 possesses outstanding welding properties and can be used in all positions, except vertical down. The weld metal displays high mechanical properties and is tough, pore-less and not prone to cracking.

Applications:

LoTherme-534 is used for joining and surfacing on aluminium-bronzes (up to 10% Al), copper and copper alloys as well as surfacing on steel, cast steel and cast iron. It is also suitable for welding pipe cavities in new aluminium-bronze castings. Its corrosion resistance allows it to be used on marine propellers, acid pumps and fittings.

Typical Mechanical Properties Of All Weld Metal:

| | | |
|---------------------------|---|-----------------------|
| ULTIMATE TENSILE STRENGTH | : | 46 Kg/mm ² |
| ELONGATION (L=4d) | : | 20 % |

Welding Instructions:

Clean the weld zone thoroughly. Wall thickness in excess of 5 mm must be grooved out with a 90°V. Bigger work-pieces are preheated to about 150-250°C. To avoid overheating, guide the electrode vertically at high welding speed. Use only dry electrodes. Electrodes that have got damp must be dried 2 to 3 hours at 250°C.

Current Conditions : DC(+)

| | | | | |
|---------------|---------|---------|----------|---------|
| Size (mm) | 5x350 | 4x350 | 3.15x350 | 2.5x350 |
| Dia x Length | | | | |
| Current Range | 160-200 | 130-160 | 80-110 | 70-90 |
| (Amps) | | | | |

LoTherme - 535

Complex aluminium-bronze electrode with high mechanical properties and sea water resistant

Characteristics :

LoTherme-535 possesses outstanding welding properties and can be used in all positions, except vertical down. The weld metal displays high mechanical properties and is tough, pore-less and not prone to cracking. It work hardens to give excellent resilience to wear.

Applications:

LoTherme-535 is used for joining and surfacing on complex aluminium-bronzes, especially those with high Mn, as well as steel and grey cast iron. It is also eminently suited for shipbuilding (marine propellers, pumps and fittings) and in the chemical industry (valves, pumps) where chemical attack is accompanied by erosion. Its favorable coefficient of friction makes it ideal for surfacing on shafts, sliding surfaces, bearings, punches and dies of all kinds.

Typical Mechanical Properties Of All Weld Metal:

| | | |
|---------------------------|---|------------------------|
| ULTIMATE TENSILE STRENGTH | : | 66 Kgf/mm ² |
| ELONGATION (L=4d) | : | 25 % |

Welding Instructions:

Clean the weld zone thoroughly. Wall thickness in excess of 5 mm must be grooved out with a 90°V. Bigger work-pieces are preheated to about 200-250°C. To avoid overheating, guide the electrode vertically at high welding speed. Use only dry electrodes. Electrodes that have got damp must be dried 2 to 3 hours at 250°C.

Current Conditions : DC(+)

| | | | | |
|---------------|---------|---------|----------|---------|
| Size (mm) | 5x350 | 4x350 | 3.15x350 | 2.5x350 |
| Dia x Length | | | | |
| Current Range | 150-190 | 120-160 | 80-120 | 60-90 |
| (Amps) | | | | |



LoTHERME



LoTherme - 536

A specially formulated low-heat input 70/30 alloy for Cupro-Nickel welding.

Characteristics :

LoTherme-536 is a copper - nickel electrode, for joining and surfacing of wrought and cast alloys of similar composition as well as 80/20 and 90/10 alloys. It operates in all conventional positions.

Applications:

LoTherme-536 is used in offshore applications because of its good resistance to the corrosion in seawater. It is also suitable for ship-building, chemical process equipments, oil refineries, food industries, etc.

Typical Mechanical Properties Of All Weld Metal:

| | | |
|---------------------------|---|-----------------------|
| ULTIMATE TENSILE STRENGTH | : | 40 Kg/mm ² |
| ELONGATION (L=4d) | : | 28 % |

Welding Instructions:

Clean the weld zone thoroughly. Wall thickness in excess of 5 mm must be grooved out with a 90°V. Bigger work-pieces are preheated to about 200-250°C. To avoid overheating, guide the electrode vertically at high welding speed. Use only dry electrodes. Electrodes that have got damp must be dried 2 to 3 hours at 250°C.

Current Conditions : DC(+)

| | | | | |
|---------------|---------|---------|----------|---------|
| Size (mm) | 5x350 | 4x350 | 3.15x350 | 2.5x350 |
| Dia x Length | | | | |
| Current Range | 130-160 | 100-130 | 80-100 | 60-90 |
| (Amps) | | | | |