



LoTHERME



LoTherme - 200

A special low heat input electrode for welding mild steel.

Characteristics :

LoTherme-200 is a specially formulated low heat input electrode for welding mild steel sheets, structural, etc. It can be used on AC/DC (\pm) and can be operated with ease in all welding positions including vertical down. The beads are finely rippled and arc is smooth.

Applications :

LoTherme-200 is ideally suited for sheet metal welding, structural welding using low heat input welding technique. Ideal for welding mild steels in maintenance work.

Typical Mechanical Properties Of All Weld Metal :

ULTIMATE TENSILE STRENGTH	:	47 kgf/mm ²
ELONGATION (L=4d)	:	28 %

Welding Technique :

- * Clean the weld area free of all contaminants.
- * Use low current, short arc technique.

Current Conditions : AC/DC (\pm)

Size (mm)	5x350	4x350	3.15x350	2.5x350
Dia x Length				
Current Range (Amps)	150-190	120-160	80-120	50-75

LoTherme - 210

Exclusive electrode for low heat input welding of mild steel with minimal distortion.

Characteristics :

LoTherme-210 flux formation is so chosen that the electrode produces excellent weld finish at extremely low current. It can be used on AC/DC (\pm) in all conventional positions.

Finally rippled weld beads, soft and steady arc which is easy to strike and re-strike and self-detachable slag are a few among many pleasant features associated with LoTherme-210.

Applications :

LoTherme-210 has been specially designed for welding sheet metal with low heat input technique in order to prevent distortion. However, it can also be used for welding mild steel of higher thickness.

Typical Mechanical Properties Of All Weld Metal :

ULTIMATE TENSILE STRENGTH	:	48 kgf/mm ²
ELONGATION (L=4d)	:	28 %

Welding Technique :

Keep the electrode dry. Clean the weld area free of any surface contamination. Use low current and short arc technique. While welding sheet metal, it will be of greater advantage if the job can be placed in an inclined position and welded downhill. This will also help in increasing welding output.

Current Conditions : AC/DC (\pm)

Size (mm)	5x350	4x350	3.15x350	2.5x350
Dia x Length				
Current Range	140-200	110-160	80-120	50-80
(Amps)				



LoTHERME



LoTherme - 210 R

A medium coated electrode for low heat input welding of mild steel with minimal distortion.

Characteristics :

LoTherme-210R produces excellent weld finish at extremely low current. It can be used in all conventional positions. Finely rippled weld beads, soft and steady arc, radiographic quality weld and self-detachable slag are a few among many pleasant features associated with LoTherme-210R.

Applications :

LoTherme-210R has been designed for welding sheet metal in low heat input technique. It can also be used for welding mild steel of higher thickness depending on the applications. This electrode can be used for fabrication and repairing of Buckles, Gear cases, Protector tubs, Door patches, Side panels, End wall patches etc. of rolling stocks and locomotives.

Typical Mechanical Properties Of All Weld Metal :

ULTIMATE TENSILE STRENGTH	:	48 kgf/mm ²
ELONGATION (L=4d)	:	27 %

Welding Technique :

Keep the electrode dry. Clean the weld area free of any surface contamination. Use low current and short arc technique. While welding sheet metal, it will be of greater advantage if the job can be placed in an inclined position and welded down-hill. This will also help in increasing welding output.

Current Conditions : AC/DC (±)

Size (mm)	5x350	4x350	3.15x350	2.5x350
Dia x Length				
Current Range (Amps)	160-200	130-160	90-120	50-80

LoTherme - 351

Low heat input basic coated type high-yield hydrogen controlled electrode.

Characteristics :

- Low heat input, low hydrogen type electrode.
- Steady, smooth arc, which is easy to strike and re-strike.
- Extremely low spatter, excellent slag detachability and finely rippled weld beads.
- Radiographic quality welds having excellent cracking resistance.
- Weld metal of excellent toughness to withstand heavy dynamic loading and impact.

Applications :

LoTherme 351 is ideally suited for welding carbon steels used in the construction of machinery and equipment subjected to heavy dynamic load, impact and severe service conditions. Some of the typical applications include: Heavy structures subjected to dynamic loading and impact, Highly restrained joints, Rail coaches, Wagons, Ships, Girders for columns, bridges, Blast furnace shells, Rotary kiln shells, building machinery, Earth moving machinery, Boilers, Pressure vessels.

Typical Mechanical Properties Of All Weld Metal :

ULTIMATE TENSILE STRENGTH	:	53 kgf/mm ²
ELONGATION (L=4d)	:	28 %

Welding Technique :

Redry the electrodes at 250°C for one hour before use. Clean the weld area completely free of oil, grease, paint, rust or any other foreign matter. For welding heavy sections in cast steel, preheating of the part may prove beneficial. Use short arc.

Current Conditions : DC (+)/AC

Size (mm)	5x350	4x350	3.15x350	2.5x350
Dia x Length				
Current Range (Amps)	170-220	130-160	90-120	60-90



LoTHERME



LoTherme - 352

Hydrogen controlled electrode for mild, medium carbon, high strength steels, cast steels, "problem steels", and for cushion layer under hard deposits.

Characteristics :

LoTherme-352 is a hydrogen controlled electrode, operates equally well in all conventional positions. High quality, high strength, crack-free RADIOGRAPHIC welds are the special features of LoTherme-352. Welds display good ductility and impact resistance at ambient and sub-zero temperatures.

Applications :

LoTherme-352 is ideally suited for welding mild, medium carbon, high tensile steels, difficult steels, steels high in sulphur and phosphorus, heavy structures, plant and equipment subjected to dynamic loading and impact. It is equally good for depositing buffer layer before hard surfacing.

Typical Mechanical Properties Of All Weld Metal :

ULTIMATE TENSILE STRENGTH	:	56 kgf/mm ²
ELONGATION (L=4d)	:	28 %

Welding Technique :

For best results, dry the electrode at 250°C for two hours before use. Clean the weld area completely free of oil, grease, paint, rust or any other foreign matter. For welding heavy sections in cast steel, pre-heating of the part may prove beneficial. Use short arc.

Current Conditions : DC (+)/AC

Size (mm)	5x350	4x350	3.15x350	2.5x350
Dia x Length				
Current Range	170-210	140-170	110-140	60-90
(Amps)				

LoTherme - 352 R

A low heat input electrodes for mild, medium carbon steels, cast steels and for buffer layers.

Characteristics :

LoTherme-352R is a low heat input AC/DC electrode, operates equally well in all conventional positions. High quality, high strength, crack free radiographic welds are the special features of LoTherme-352R. Welds display excellent ductility and toughness.

Applications :

LoTherme-352R is suitable for repair of bogies, both cast and fabricated. Also suitable for welding mild, medium carbon steels, difficult steels, steels heavy structures, repair of Co-Co bogies, plant and equipment subject to dynamic loading and impact. It is also suitable for depositing buffer layers before hard surfacing.

Typical Mechanical Properties Of All Weld Metal :

ULTIMATE TENSILE STRENGTH	:	57 kgf/mm ²
ELONGATION (L=4d)	:	26 %

Welding Technique :

Redry the electrodes at 250°C for one hour before use. Clean the weld area completely free of oil, grease, paint, rust or any other foreign matter. For welding heavy sections in cast steel, preheating of the part may prove beneficial. Use short arc.

Current Conditions : DC (+)/AC

Size (mm)	5x350	4x350	3.15x350	2.5x350
Dia x Length				
Current Range	170-210	140-170	100-130	60-90
(Amps)				



LoTHERME



LoTherme - 353

A low heat input electrode for welding carbon steel.

Characteristics :

LoTherme-353 is a electrode operating in all conventional positions depositing a high strength weld metal. The deposits are of radiographic quality and display excellent ductility and toughness.

Applications :

LoTherme-353 is ideally suited for welding mild, medium carbon steels of medium tensile strength. Ideal electrode having excellent operational characteristics for welding carbon steels where a high joint strength is required. The electrode has a high metal recovery and is ideal for achieving faster welding speed and welding output.

Typical Mechanical Properties Of All Weld Metal :

ULTIMATE TENSILE STRENGTH	:	54 kgf/mm ²
ELONGATION (L=4d)	:	28 %

Welding Technique :

Redry the electrodes at 250°C for one hour before use. Clean the weld area free of contaminants. Use low current and short arc technique.

Current Conditions : DC (+)/AC

Size (mm)	5x350	4x350	3.15x350	2.5x350
Dia x Length				
Current Range (Amps)	150-200	120-160	90-120	60-90

LoTherme - 355

An extra low hydrogen low heat input electrode depositing a low steel weld metal. Extra high strength facilitates welding of critical jobs.

Characteristics :

LoTherme-355 is an extra low hydrogen low heat input electrode depositing a low alloy steel, high strength weld metal ideal for maintenance and repair welding of Cr- Ni -Mo high strength low alloy steels, case hardened steels, heat-treated steels, etc. The extra low hydrogen helps in preventing cold cracks.

Applications :

Ideal for maintenance and repair welding of high strength steels, case hardened steels, heat-treated steels, etc. Typical applications include welding of rolls, shafts, gear wheels, etc.

Typical Mechanical Properties Of All Weld Metal :

ULTIMATE TENSILE STRENGTH	:	78 kgf/mm ²
ELONGATION (L=4d)	:	20 %

Welding Technique :

Redry the electrodes at 350°C for 2 hours. Clean the weld area free of all contaminants. In case of the case hardened materials, the case depth should be removed before welding. Depending on the base material, a suitable procedure should be evolved for reclamation.

Current Conditions : DC (+)/AC

Size (mm)	5x350	4x350	3.15x350	2.5x350
Dia x Length				
Current Range (Amps)	150-170	110-140	80-120	50-70



LoTHERME



LoTherme - 357

Low heat input electrode for withstanding moderate thermal shocks, on carbon steel applications only.

Characteristics :

LoTherme-357, is a special type electrode, operates equally well in all conventional positions. Smooth and soft arc, which is easy to strike and restrike. Finely rippled smooth weld beads. Crack free RADIOGRAPHIC welds are the special features of LoTherme-357.

Applications :

LoTherme-357 is a versatile low heat input electrode. Ideally suited for welding 0.5Cr-0.5Mo, 1Cr-0.5Mo and 1.25 Cr-0.5Mo steels. The weld deposit gives good tensile strength.

Typical Mechanical Properties Of All Weld Metal :

ULTIMATE TENSILE STRENGTH	:	60 kgf/mm ²
ELONGATION (L=4d)	:	25 %

Welding Technique :

For best results dry the electrodes at 250°C for 2 hours before use. Clean the weld area completely free of oil, grease, paints, rust or any other foreign matter. For welding heavy sections in cast steel and low alloy steel, preheating of the part may prove beneficial. Use short arc and stringer beads.

Current Conditions : DC (+)

Size (mm)	5x350	4x350	3.15x350	2.5x350
Dia x Length				
Current Range	170-200	140-170	90-120	60-80
(Amps)				