# S-717

## Flux Properties

**Class.** JIS Z 3352 SA AB1
EN ISO 14174-S A AB 1
**Current** AC, DC +
**Density** 1.1g/cm$^3$
**BI** 1.6
**Grain Size** 10 x 48 Mesh

## Features

- Outstanding multi weldability for thick steel plates
- Pressure vessels, wind towers

## Wire Approvals

| Wire | Approvals | AWS | EN ISO 14174 / 14171 |
|---|---|---|---|
| M-12K | ABS, BV, DNV, KR, LR, NK, RS, CWB, CE, DB, TUV | A5.17 F7A(P)6-EM12K | S A AB 1 / S42 4 AB S2Si |
| L-8 | | A5.17 F6A(P)4-EL8 | S A AB 1 / S1 |
| A-2 | | A5.23 F8A0(PZ)-EA2-A4 | S A AB 1 / S2Mo |

## Typical Chemical Composition of All-Weld Metal (wt%)

| Wire | C | Si | Mn | P | S | Mo |
|---|---|---|---|---|---|---|
| M-12K | 0.09 | 0.30 | 1.50 | 0.020 | 0.005 | - |
| L-8 | 0.07 | 0.20 | 1.00 | 0.025 | 0.005 | - |
| A-2 | 0.08 | 0.30 | 1.50 | 0.025 | 0.005 | 0.45 |

## Typical Mechanical Properties of All-Weld Metal

| Wire | Condition | YS MPa(ksi) | TS MPa(ksi) | EL (%) | Temp °C (°F) | Impact ISO-V J (ft·lbs) |
|---|---|---|---|---|---|---|
| M-12K | DC+, As-welded | 470(68) | 550(80) | 34 | -50(-60) | 80(59) |
| | DC+, 620°C×1hr | 430(62) | 540(78) | 35 | -50(-60) | 80(59) |
| L-8 | DC+, As-welded | 430(62) | 510(74) | 36 | -40(-40) | 50(37) |
| | DC+, 620°C×1hr | 410(59) | 500(73) | 37 | -40(-40) | 50(37) |
| A-2 | DC+, As-welded | 540(78) | 650(94) | 29 | -20(0) | 60(44) |
| | DC+, 620°C×1hr | 530(77) | 640(93) | 30 | -20(0) | 60(44) |

## Wire Diameter & Packaging

| Packaging |
|---|
| Tin Can 20kg (44lbs)<br>PE Bag 20kg (44lbs) |