# 8500

## TOP FEATURES

- Capable of providing impact properties necessary for thick weld joints from root to cap pass
- Operates well on AC and multiple arcs with good resistance to nitrogen porosity
- Capable of producing weld deposits with impact properties exceeding 27 J at -62°C

## CLASSIFICATION

| Flux | EN ISO 14174: S A FB 1 54 AC H5 |
|---|---|

| Flux/wire | EN ISO 14171-A: MR | EN ISO 14171-A: TR | AWS A5.17 / A5.23 |
|---|---|---|---|
| 8500 / L-61 | S 38 4 FB S2Si | S 4T 0 FB S2Si | F7A6/F6P8-EM12K |
| 8500 / L-50M | S 42 6 FB S3Si | S 4T 2 FB S3Si | F7A6/F7P8-EH12K |
| 8500 / LNS 140A | S 42 4 FB S2Mo | | F8A6-EA2-A2 |
| 8500 / LNS 160 | S 42 5 FB S2Ni1* | | F7A8/P8-ENi1-Ni1 |
| 8500 / LNS 162 | S 42 6 FB S2Ni2* | | F7A8/P8-ENi2-Ni2 |
| 8500 / LNS 165 (LA85) | S 50 6 FB S3Ni1Mo0.2 | | F8A8/F7P8-ENi5-Ni5 |
| 8500 / LNS T55 | S 50 4 FB TZ | | |

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, ALL WELD METAL

| Wire grade | C | Mn | Si | P | S | Mo | Ni |
|---|---|---|---|---|---|---|---|
| L-61 | 0.08 | 1.0 | 0.2 | <0.02 | <0.015 | | |
| L-50M (LNS 133U) | 0.07 | 1.4 | 0.3 | <0.02 | <0.015 | | |
| LNS 140A (L-70) | 0.08 | 0.9 | 0.2 | 0.03 | <0.025 | 0.4 | |
| LNS 160 | 0.07 | 1.0 | 0.1 | 0.02 | 0.015 | | 0.95 |
| LNS 162 | 0.08 | 1.0 | 0.1 | 0.02 | 0.015 | | 2.0 |
| LNS 165 (LA 85) | 0.07 | 1.3 | 0.2 | 0.02 | 0.015 | 0.2 | 0.9 |
| LNS T55 | 0.08 | 1.7 | 0.7 | <0.015 | <0.015 | | |

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

| Wire grade | Condition* | Yield strength (MPa) | Tensile strength (MPa) | Elongation (%) | Impact ISO-V (J) | | |
|---|---|---|---|---|---|---|---|
| | | | | | -20°C | -40°C | -60°C |
| L-61 | MR | 420 | 510 | 28 | 150 | 100 | 50 |
| L-50M (LNS 133U) | MR | 450 | 540 | 28 | | 110 | |
| L-50M (LNS 133U) | SR | >420 | >500 | 30 | | 150 | |
| LNS 140A (L-70) | MR | 440 | 540 | 28 | | 55 | |
| LNS 160 | AW | 430 | 510 | 30 | | 150 | 60 |
| LNS 160 | SR | 400 | 510 | 30 | | 150 | 90 |
| LNS 162 | AW | 470 | 560 | | | 150 | 70 |
| LNS 162 | SR | 450 | 530 | | | 150 | 100 |
| LNS 165 (LA 85) | AW | 530 | 600 | 25 | | 120 | 50 |
| LNS 165 (LA 85) | SR | 480 | 580 | 30 | | 120 | 60 |
| LNS T55 | AW | 530 | 620 | | 120 | 80 | |
| LNS T55 | SR | 500 | 570 | | | 70 | |

* MR = Multi-Run; TR = Two-Run; AW = As welded; SR = Stress relieved

## FLUX CHARACTERISTICS

| | |
|---|---|
| Current type | DC/AC |
| Basicity (Boniszewski) | 2.8 |
| Solidification speed | Medium |
| Density (kg/dm³) | 1.3 |
| Grain size (ISO 14174) | 2 - 20 |

## PACKAGING AND AVAILABLE SIZES

| Packaging | Weight (kg) | Item number |
|---|---|---|
| DRUM | 250.0 | FX8500-250 |
| SRB BAG | 25.0 | FX8500-25SRB |

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application

Safety Data Sheets (SDS) are available here:

Subject to Change – The information is accurate to the best of our knowledge at the time of printing.
Please refer to www.lincolnelectric.eu for any updated information.