

## TECHNICAL DATA

### Standards

DIN Material Nr. 1.6356

|            |                  |
|------------|------------------|
| EN 14700 : | S ZFe5           |
| DIN 8556 : | W/MSG 3-GZ-350-T |

### General Properties / Field of Applications

**DSI M 70/12** is a high-alloy, maraging steel Laser Welding Wire used for Aluminium die-casting molds and trimming tools. Good capable of being machine. Applicable for Nitride coating. For high stressed cold and hot work tools. Best for high pressure hot wear resistance, crack repairing, good machinability after welded and wear resistance upgrading is available after artificial aging.

### Mechanical Properties

|                                      |                              |       |
|--------------------------------------|------------------------------|-------|
| Hardness of filler material at 20°C  | [HRC]                        | 32-35 |
| Hardness after artificial aged 3-4 H | [HRC]                        | 50-54 |
| Yield strength R <sub>p0.2</sub>     | [MPa] / [N/mm <sup>2</sup> ] | 885   |
| Tensile strength R <sub>m</sub>      | [MPa] / [N/mm <sup>2</sup> ] | 980   |

### Chemical Composition (Standard Values in %)

| C    | Si  | Mn  | Cr  | Mo  | Ni   | Co   | Ti  |
|------|-----|-----|-----|-----|------|------|-----|
| 0.01 | 0.4 | 0.1 | 0.2 | 4.0 | 18.0 | 12.0 | 1.6 |

### Compatible Materials (Selection)

|                                                                                 |
|---------------------------------------------------------------------------------|
| Maraging steel / SKD61 / MAS1C / 1.2343 / 1.2344 / AISI H13 / BH13 / 8407 DHA 1 |
|---------------------------------------------------------------------------------|

### Packaging and available Sizes\*

|                     |      |                                                     |
|---------------------|------|-----------------------------------------------------|
| Spool : MA125 mm    | Ø mm | 0.2 / 0.3 / 0.4 / 0.5 / 0.6 / 0.7 / 0.8 / 1.0 / 1.2 |
| Rod : 500 / 1000 mm | Ø mm | 0.2 / 0.3 / 0.4 / 0.5 / 0.6 / 0.7 / 0.8 / 1.0 / 1.2 |

\* Other dimensions available on request

wires@dsilaser.com

