

# Data sheet and application

## DIM L-1.6356 NiCo<sup>®</sup>

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EN/DIN 8555:	W/MSG 3-GZ-350-T
EN 14700:	S Z Fe5
AMS 6512:	MIL-S-46850 (Grade 350)

## Characteristics

**DIM L-1.6356 NiCo** is a high-alloyed, artificially aged, highly tough and extremely wear resistant laser welding wire for heavily stressed **cold- and hot-working tools** (co alloyed).

**DIM L-1.6356 NiCo** works crack preventing in case of momentary temperature deterrence and is therefore applied on **aluminum-dies** as well as precautionary for **hot crack repairs**. The welding can be modified and reworked easily by hand.

Due to the high heat resistance of **DIM L-1.6356 NiCo**, the material is also very suitable for **repairs on glass molds**.

**DIM L-1.6356 NiCo** brings excellent characteristics against wear, even though its original hardness only lies at around 35 HRC. The warm operating process within the tool operation causes an outsourcing process. Here, the weld metal hardens up to 54 HRC.

Further application areas are the crack-resistant, multi layered structure of contours on any type of tool steels and applications of **work areas of draw- and embossing tools as well as folding-press dies**, which is due to the high glide coefficient metal on metal.

Specific base materials:

Several warm- and cold working steels, GG and GGG cast materials.

Materials of same type: 1.2706 / 1.2709 / Böhler W720/21/22 / 1.6354 / 1.6358 (AMS 6512-6514) / Thyrodur / Corrax.

Hardness of first layer: **35 HRC**

After warm outsourcing process up to **54 HRC**.

After warm outsourcing 4h at 480°C: 54 HRC / constant warmth: **> 58 HRC**.

After plasma nitriding, emergence of Ti-Nitrid layer of **980 – 1000 V**.

## Chemical composition

C	Mo	Ni	Co	Ti	Al	Fe
0,02	4,0	18,0	12,0	1,6	0,1	Remainder

Certificate of batch upon request.

## Other

Artificially ageing, nitridable, polishable, chrome-platable, CVD-coatable.