

# MOLDADUR®-P

## Scratch protection for sensitive surfaces

The protective layer for polished and structured surfaces in plastic mould construction.

MOLDADUR®-P is a special plasma process of voestalpine eifeler Coating GmbH, which creates a protective layer on highly sensitive surfaces. The surface is thereby lastingly protected against wear or damage. Suitable for polished and structured surfaces on plastic moulds.

MOLDADUR®-P creates a scratch-resistant surface without altering the surface quality and while

preserving the visual appearance. MOLDADUR®-P, compared to conventional processes, is able to very uniformly copy the surface contours – even within depressions – while also creating a constant surface hardness on the entire tool. This is achieved primarily through the perfectly adapted process management in small systems (max. component size of Ø 850 x 800 mm).

### APPLICATIONS

<b>Treatable steels / surface hardness</b>	All common tool steels with tempering temperatures $\geq 380$ °C are treatable; the achievable surface hardness is dependent on the alloy composition of the steel. The properties of corrosion-resistant steels are preserved with MOLDADUR®-P.
<b>Treatable steels</b>	All metallicly bright steel surfaces are treatable with MOLDADUR®-P, for example dash-polished, structure-polished, or high-gloss polished tools. A high-gloss polished surface is a very good pre-condition in this case. After the surface treatment, a repolishing is possible.
<b>Treatment temperature</b>	The treatment temperature lies in the range of 380 °C to 470 °C, depending on the material.

### PRODUCT FEATURES

- » Protection against scratches and wear
- » Uniform increases of surface hardness
- » Weldable
- » Coatable
- » No changes in dimensions



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EXAMPLE RESULTS OF TREATMENT WITH MOLDADUR®-P

Manufacturer	Material	Surface hardness according to MOLDADUR®-P [HV0.1]*	Initial hardness [HV0.1]*
<b>General</b>	1.2343 ESU	1200	550
	1.2316	1350	300
	1.2738	900	350
	1.2083	1400	600
	1.2379	1300	700
<b>BÖHLER</b>	W400	1100	500
	W300	1200	500
	M303	1350	300
	M333	1350	500
	M368	1400	550
	M268	900	350
	M261	950	350
<b>Eschmann</b>	ES Primus SL	1200	550
	ES Atlas 42	950	450
<b>UDDEHOLM</b>	Caldie	1150	650
	Stavax ESR	1400	550
	Elmax	1500	650
	QR090	1100	500
	Nimax	1000	400
	Unimax	1200	650
	Corrax	1350	550
	Van4E	1200	700

\*general measurement tolerance  $\pm 50$ , in addition to the alloy composition of the steel the results achieved also depend on the individual process management.