

Make your products shine with **BALITHERM PRIMEFORM**

The innovative and highly efficient treatment
for brilliant mould surfaces



Plastics

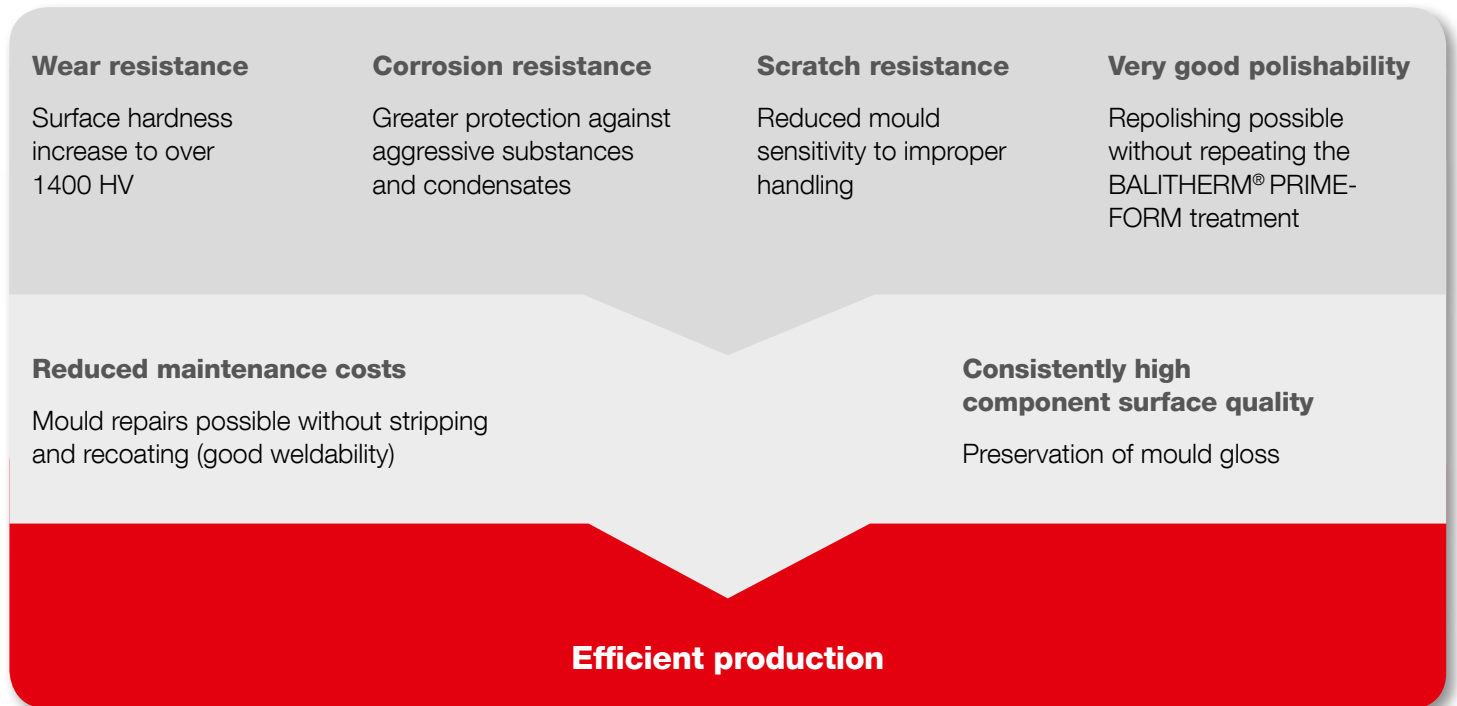


BALITHERM PRIMEFORM: The innovative repair effect for mould surfaces and higher productivity

As a professional, you are aware of this problem: Mirror-polished surfaces in plastics injection moulding are very sensitive. Heavily stressed surfaces in particular are prone to wear and scratches caused by environmental effects or improper handling. Subsequent repairs or even repolishing is time-consuming and costly.

That's why we developed BALITHERM® PRIMEFORM – a plasma-assisted treatment that perceptibly boosts the surface hardness of your moulds with a diffusion coating. Additionally, it prevents build-up, flaking, and embrittlement at edges.

Brilliant benefits for you



Steel moulds for plastics treated with BALITHERM PRIMEFORM have better properties

Steel grade	1.2738/1.2311/1.2312		1.2343/1.2344		1.4112/1.4122		1.8519/1.8550/1.7735	
	P20+Ni/P20/P20+S		H11/H13		440B/-		-/-/A470	
	-/-/-		SKD 6/SKD 61		-/-		-/-/-	
	un-treated	BALITHERM® PRIMEFORM	un-treated	BALITHERM® PRIMEFORM	un-treated	BALITHERM® PRIMEFORM	un-treated	BALITHERM® PRIMEFORM
Polishability	+	++	+	++	+	++	-	++
Etchability	-	+	+	+	+	++	+	+
Weldability	+	+	+	+	+	+	+	+
Surface hardness	--	+	-	++	+	+	--	++

The optimised solution for every application



Automobiles

Examples: bumpers, headlights, and seat shells



Agricultural machinery

Examples: external parts



Trucks

Examples: external parts



Furniture

Example: plastic seats



Household appliances

Examples: high-gloss fittings and fascia panels



Electrical devices

Example: covers



Medical technology

Example: Reusable syringes



Packaging industry

Example: Beverage bottles

A compelling advantage



Problem so far

Slight corrosion in hard-to-reach places despite TiN / CrN. Scratches caused while cleaning the mould – difficult or impossible to remove. Disadvantages: Multiple stripping and recoating or new hard chrome-plating, elaborate maintenance required.

Solution

BALITHERM® PRIMEFORM. For noticeably improved demoulding, optimised process reliability, enhanced component quality.

Result

Improved production efficiency and reliability. Reduced scrap costs. Productivity gain in the magnitude of 60 %.

Specifications

Treatable steels	Strong steels with dimensional stability up to temperatures of 450°C, e.g. 1.2311, 1.2738, 1.2316, 1.2343, 1.2344, 1.2379, 1.2083 (secondary heat treatment), 1.4112/1.4122, 1.8519/1.8550/1.7735
Treatment temperature	450°C standard, 380°C on request (steels with > 10% Cr). Please always double check with the BALITHERM® PRIMEFORM product information
Treatable surfaces	Polished surfaces (mirror/brushed) and textured surfaces (shot-peened, etched, eroded)
Post-treatment	Generally possible
Combinations with other coatings	BALINIT® C, BALINIT® ALCRONA PRO, BALINIT® FUTURA NANO, BALINIT® LUMENA, BALINIT® D, BALINIT® A, BALINIT® CROMA, BALINIT® CROMA PLUS, BALINIT® DYLYN, BALINIT® DYLYN PLUS, BALINIT® DYLYN PRO
Tool dimensions	Length max. 9.500 mm Part weights up to 25 t

Tap into our global network of coating centres to fully exploit the potential of your plastic injection moulds

Balzers Headquarters

Oerlikon Balzers Coating AG
Balzers Technology and
Service Centre
Iramali 18
LI-9496 Balzers
Liechtenstein
T +423 388 7500
www.oerlikon.com/balzers

Brazil

Oerlikon Balzers Revestimentos
Metálicos Ltda
Rua Balzers, 250
Parque Industrial
Jundiá-SP 13213-084
T +55 11 2152 0464
www.oerlikon.com/balzers/br

Germany

Oerlikon Balzers Coating
Germany GmbH
Am Ockenheimer Graben 41
D-55411 Bingen
T +49 67 21 7 93-0
www.oerlikon.com/balzers/de

France

Oerlikon Balzers Coating France SAS
P.A. des 3 Noyers
16 avenue James de Rothschild
F-77164 Ferrières-en-Brie
T +33 1 64 12 49 00
www.oerlikon.com/balzers/fr

Korea

Oerlikon Balzers Coating Korea Co., Ltd.
49, Hansan-gil, Cheongbuk-myeon,
Pyeongtaek,
Gyeonggi-do,
Korea, 451-833
T +82 31 680 9900
www.oerlikon.com/balzers/kr

Mexico

Oerlikon Balzers Coating México,
S.A. de C.V.
Acceso III No. 304 y 306
Colonia Industrial La Montaña
C.P. 76150
Querétaro, Qro.
T +52 442 209 68 00
www.oerlikon.com/balzers/mx

USA

Oerlikon Balzers Coating USA, Inc.
1475 E. Woodfield Rd.
Suite 201
Schaumburg, IL 60173
T +1 847 619-5541
www.oerlikon.com/balzers/us

Further coating centres

Argentina, India, Indonesia, Italy,
Japan, Canada, Liechtenstein,
Malaysia, Netherlands, Austria,
Poland, Portugal, Romania,
Scandinavia, Switzerland, Spain,
Thailand, Czech Republic, Turkey,
Ungaria

You can find a full listing
of our locations at:

www.oerlikon.com/balzers

oerlikon
balzers