

BALINIT MOLDENA

Abrasion and corrosion resistant coating for injection moulding and extrusion of filled polymers



Plastics



Longer mould service life and high product quality for injection moulding and extrusion of filled polymers

The newly developed coating from Oerlikon Balzers is 7 µm thin, exceeds the hardness of almost all previous coatings for processing plastics and offers outstanding abrasion and corrosion resistance. These last two properties make it the perfect coating for injection moulding and extrusion of abrasive materials such as glass fibre reinforced plastics, and it is also ideal

for injection moulding of corrosive materials such as fully recycled materials or those with a high flame retarder content. When a standard coating is applied to injection moulds used to process unsaturated polyester (40%), the coating peeled off after 40,000 shots. With the new coating BALINIT® MOLDENA, the same high product quality was provided even after 200,000 shots.

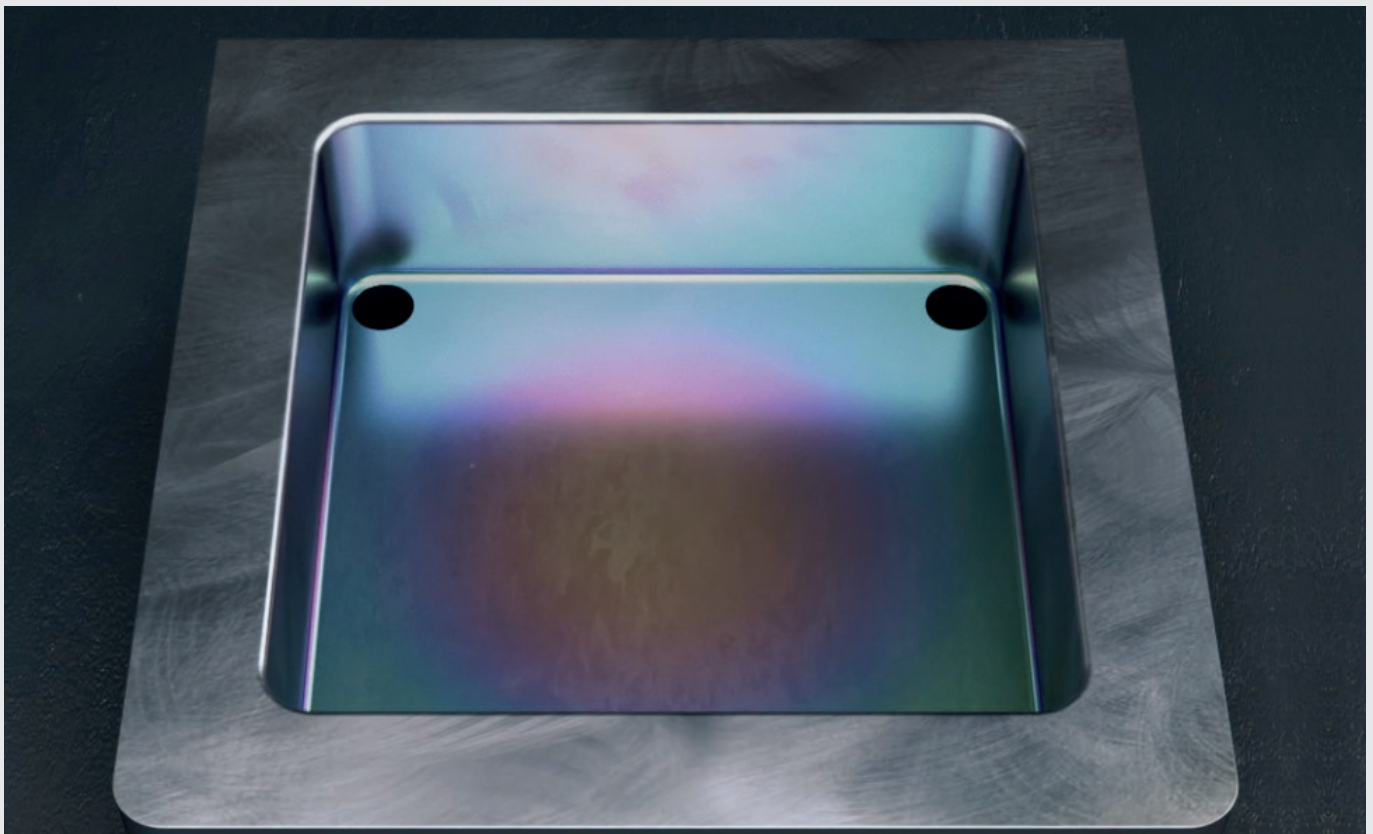
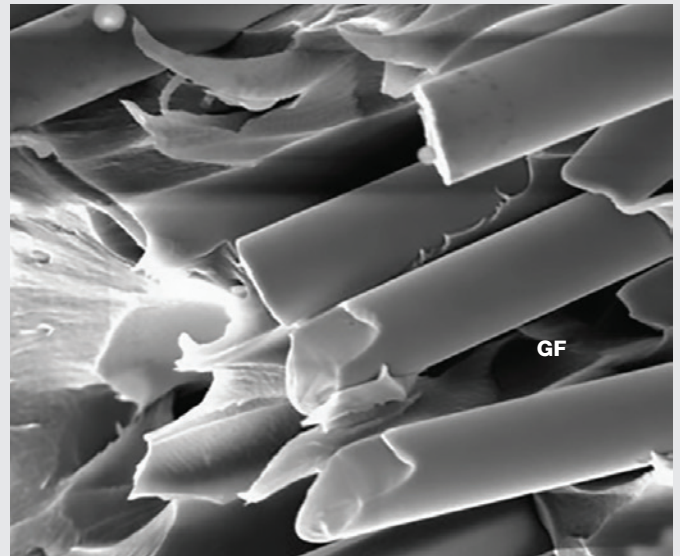
BALINIT MOLDENA in detail

Characteristics

- Superior abrasive and corrosion resistance
- High hardness
- Less sticking

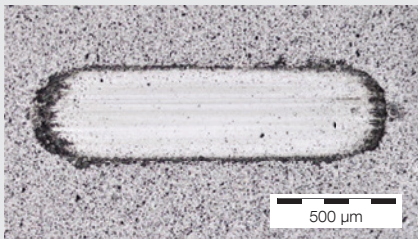
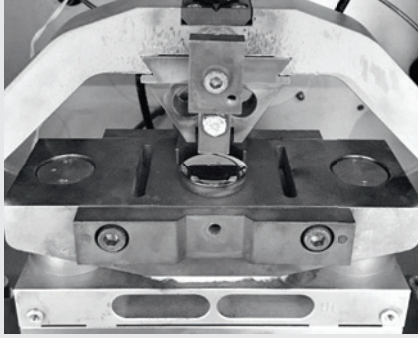
Applications

- Injection moulding of abrasive materials
e.g. glass fiber filled materials (> 30%)
- Extrusion of abrasive and corrosive materials
- Injection moulding of corrosive materials
e.g. high recycled material content
e.g. high flame retarder content

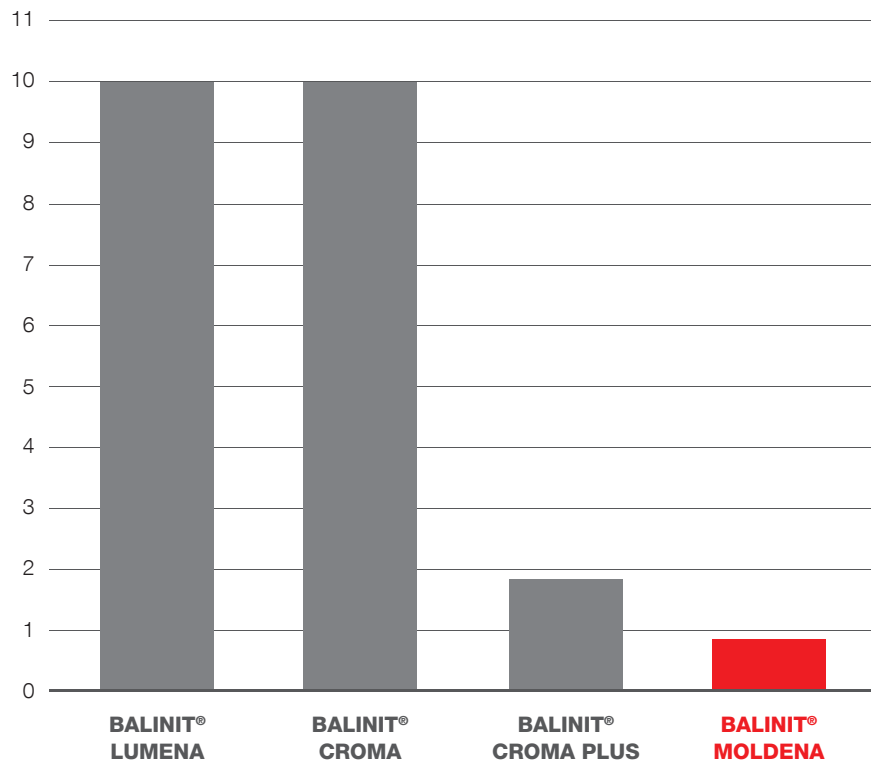


Abrasive resistance

BALINIT® MOLDENA shows much less wear compared to all standard Oerlikon Balzers abrasive resistant coatings.



Wear in micron



Measured wear depth after 60 min accelerated wear test (SRV) against Al₂O₃

Technical data comparison

	BALINIT® CROMA	BALINIT® CROMA PLUS	BALINIT® MOLDENA
Coating material	CrN	CrN+OX	CrN/CrON
Microhardness (HV 0.05)	2,300	2,500	2,800
Coating thickness (μm)	3 coating thicknesses available: 4 – 6 / 6 – 8 / 8 – 10		1 thickness: ~7
Hardness (GPa)	25 +/- 3	25 +/- 3	28 +/- 3
Max. service temperature (°C)	700	700	700
Coating temperature (°C)	250 – 450	250 – 450	350
Coating colour	Silver grey	Rainbow	Dark rainbow
Coating structure	Multilayer	Multilayer	Multilayer
Available in BALINIT® DUPLEX Series	Yes	Yes	Yes

All given data are approximate values, they depend on application, environment and test condition.

Explore the new coating-solution **BALINIT MOLDENA!** Contact us now!

Headquarters Balzers

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

China

Oerlikon Balzers Coating (Suzhou)
Co., Ltd
No.9 Chang Yang Street
Suzhou Industry Park
Jiangsu Province
Suzhou 215024
T +86 512 67620369
www.oerlikon.com/balzers/cn

Korea

Oerlikon Balzers Coating Korea
Co., Ltd.
49, Hansan-gil, Cheongbuk-eup
Pyeongtaek-si
Gyeonggi-do
Korea, 17792
T +82 31 680 9900
www.oerlikon.com/balzers/kr

Thailand

Balzers Coating (Thailand) Co.,Ltd.
700/538 Moo.6,
T.Donhualoh, A.Muang,
Chonburi 20000
T +6638454201 - 204
www.oerlikon.com/balzers/th

Liechtenstein

Oerlikon Balzers Coating AG
Beschichtungszentrum
Iramali 18
9496 Balzers
T +423 388 5701
www.oerlikon.com/balzers/fl

France

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

Luxembourg

Oerlikon Balzers Coating Luxembourg
s.à.r.l.
Route de Bascharage
Zone Industrielle Haaneboesch
4513 Niedercoorn
T +352 265 80891
www.oerlikon.com/balzers/be

USA

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

Austria

Oerlikon Balzers Coating Austria
GmbH
Burgstallweg 27
8605 Kapfenberg
T +43 38 62 34144
www.oerlikon.com/balzers/at

Germany

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

Mexico

Oerlikon Balzers Coating S.A. de C.V.
Calle Acceso III
San José de La Montaña
Acceso Industrial 304 y 306
76150 Santiago de Querétaro, Qro
T +521 442 209 68 00
www.oerlikon.com/balzers/mx

Our worldwide coating centre
network addresses are listed at:
www.oerlikon.com/balzers

Belgium

Oerlikon Balzers Coating
Benelux NV
Nijverheidslaan 5470
3800 Sint-Truiden
T +32 1169 30 40
www.oerlikon.com/balzers/be

Italy

Oerlikon Balzers Coating Italy
S.p.A.
Via Volturmo 37
20861 Brugherio
T +39 039 289 901
www.oerlikon.com/balzers/it

Poland

Oerlikon Balzers Coating Poland Sp.
z o.o.
ul. Fabryczna 4
59-101 Polkowice
T +48 76 746 48 00
www.oerlikon.com/balzers/pl

Brazil

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

Japan

Oerlikon Japan Co., Ltd.
7-2-2 Shinomiya
Hiratsuka-City
254-0014 Kanagawa-Pref.
T +81 463 54 2220
www.oerlikon.com/balzers/jp

Switzerland

Oerlikon Balzers Coating SA,
Brügg
Erlenstrasse 39
2555 Brügg
T +41 323 65 74 74
www.oerlikon.com/balzers/ch

oerlikon
balzers