

PoluAl High Temp

- ✓ Prevents corrosion
- ✓ Up to 550 ℃
- ✓ Heat conductive

Prevents corrosion at temperatures up to 550 °C (1022 °F)

Heat exchangers that are used for heat regeneration in exhaust gasses are exposed to extreme corrosive conditions. The high temperatures, condensation and airborne chemical substances make the condition for the metals off a heat exchanger severe. Sulphur and nitrogen and chlorides are the main compounds responsible for the initiation and acceleration of corrosion.

Stainless steel is often used to cope with these conditions but this does result in much lower heat exchange capacity. Engineers often prefer to work with stainless steel tubes with aluminium fins to prevent leakages with still high heat transfer capacity. These aluminium fins need protection to cope with the harsh conditions. Protective coatings have to meet complex requirements like heat conductivity, heat and chemical resistance.

WITH BLYGOLD POLUAL HIGH TEMP



WITHOUT BLYGOLD POLUAL HIGH TEMP



Special coating

Blygold PoluAl High Temp is a heat conducting, corrosion prohibitive coating that is able to protect metals from rapid deterioration in extreme conditions and to withstand temperatures up to 550 °C (1202 °F). Blygold PoluAl High Temp will prevent capacity loss and premature deterioration of the heat exchanger. The coating can be applied to steel, aluminium zinc and stainless steel

- ✓ High chemical resistance
- ✓ Up to 550 °C (1202 °F)
- ✓ Triples the life time
- ✓ Negligible pressure drop
- ✓ Heat conductive

Special application

Blygold applies coatings to different types of heat exchangers. Finned tube heat exchangers are often the first choice in power plants, offshore rigs and heavy industries. This type of finned tube bundles are known for the high quality butsometimes need extra protection in corrosive environments.To seal of the vulnerable metals from corrosive elements. Blygold developed special application procedures andcoatings for these spiral tubes bundles. For the treatment of Round Tube Plate Fin heat exchangers.



TECHNICAL INFORMATION

Heat Transfer coefficient [W/m2k]

Treatment:	Blygold PoluAl High Temp
Coating type:	Aluminum pigmented Siloxane
Color:	Silver
Pretreatment:	Blygold Passivation Treatment
Temperature Range (dry):	0 to 550 °C (32° to 1022 °F)
Substrates:	Steel and Aluminum
ASTM B117:	1.500 hours (Neutral salt spray test)
ASTM B-287:	1.500 hours (acid-salt spray test)
Kesternich (2.0 ltr SO2):	24 cycles
Layer Thickness:	50 µm (2 mil)
Pressure Drop:	0-5% (depending on fin geometry)
Thermal Resistance:	0-3% (depending on fin geometry)
Application:	Qualified Blygold Applicator
UV Resistance:	Excellent
Adhesion (cross hatch):	0 (European) 5b (USA)
Applications:	Heat exchanging surfaces in high temperatures
Chemical Resistance:	Excellent



Heat Exchanger performance



deltaP with HighTemp Coating

-- HT without coating

HT with HighTemp Coating

Air velocity @ 30 oC [m/s]



BLYGOLD INTERNATIONAL

Blygold is an innovative and forward-thinking company offering unique and sustainable high-quality protection against corrosion. With over 40 years experience, we have the know-how and state-of-the-art products and techniques to solve any corrosion problem. Our multitude of success stories says it all.

Application protocols

Because of the specific geometry of heat exchangers, the quality of the application process is just as important as the applied product. Blygold has developed specific application protocols for heat exchangers of all different dimensions, geometries and materials.

Global network

To ensure our products are applied according to these protocols, Blygold works with trained and certified applicators only. Our global network of qualified Blygold applicators can offer local support in over 60 countries around the world.



Quality

- ✓ Over 40 years of experience
- ✓ Unique application techniques
- ✓ Unrivalled test results
- ✓ All trained & qualified applicators
- ✓ ISO 9001 Certified



Innovation

Deep understanding of the market

✓ Problem solving mentality

✓ Global awareness of customer needs

Revolutionary R&D

Inhouse laboratory



Sustainability

- Lifetime extension
- Energy saving & Eco Friendly
- ✓ Life Cycle Cost reduction
- ✓ Maintenance friendly
- Corporate Social Responsibility



P.O. box 44 3990 DA Houten The Netherlands www.blygold.com T. +31 30 634 43 44 F. +31 30 634 43 00 E. info@blygold.com Your local Blygold applicator