



UNPRECEDENTED HIGH-TECH LASER SURFACE
TREATMENT FOR HIGH DEMANDING INDUSTRIES

TOPCLAD®
topclad.com

TOPCLAD® Quarite-C

2016 - REV3

Application and Composition

Application	<ul style="list-style-type: none"> • In chemical corrosive environments • Excellent characteristics under high dynamic loads • Highly corrosive seawater environments and splash zone applications • Alloy with exceptional resistance to galling, cavitation- and slurry erosion
Example	<ul style="list-style-type: none"> • Rods for hydraulical cylinders • Rollers
Structure	<ul style="list-style-type: none"> • Modified Cobalt Chromium matrix
Layer thickness	<ul style="list-style-type: none"> • 200 µm optimum

Technical Specifications

Bonding strength	∞ (Infinite; intermetallic bonding)
Micro hardness	≈ 400 HV
Max. operating temperature	850 °C
Surface roughness (Ra)	< 0,4 µm
Wear rate	Depending on application
Porosity	0%
Corrosion resistency	Class RA 9 - Rp 10; ISO 10289 - 1000 hr
Dilution	< 1%
According to	ISO 5817, DNV-C1 & C2, DNV-M1, M2 & M3

Advice	<ul style="list-style-type: none"> • For applications in which ductility and high tensile strength is required • For applications in which high wear & corrosion resistance at high temperatures is required • For highly corrosive offshore environments and splash zone applications
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Sealing ¹ depending on type of oil & temperature	<ul style="list-style-type: none"> • Turcon® M-12 or equivalent (PTFE; Mineral fibers and Additives filled / ≤ 260 °C) • Turcon® T-40 / T-29 or equivalent (PTFE; Carbon fibers / ≤ 260 °C) _ Turcon® MF4 for FDA approved appl. • Zurcon® Z-80 or equivalent (UHMWPE; Ultra High Molecular Weight Polyethylene / ≤ 80 °C _ FDA appr.
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Guides ¹	<ul style="list-style-type: none"> • Orkot® C380 or equivalent (Composite Polyester resin, polyester fabric; PTFE / ≤ 120 °C) <p>¹ The information regarding sealing is based on the technical advise of "Trelleborg Sealing Solutions". However, unknown parameters and conditions may restrict general statements during usage. It is vital that you satisfy yourself as to the suitability of individual products through adequate engineering/testing. For this reason, and due to the wide range of applications, Plating Solutions BV can accept no liability as to the suitability or correctness of the recommendations in individual cases. For specific operating conditions please consult your sealing solutions technical representative.</p>
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