



UNPRECEDENTED HIGH-TECH LASER SURFACE  
TREATMENT FOR HIGH DEMANDING INDUSTRIES

TOPCLAD®  
topclad.com

**TOPCLAD® Quarite-N**

2016 - REV3

*Application and Composition*

Application	<ul style="list-style-type: none"> <li>• Components used in chemical corrosive environments</li> <li>• High temperature oxidation and corrosion resistance</li> <li>• Components exposed to both extremely low and extremely high temp.</li> <li>• Seawater applications, components exposed to acids and chlorides</li> <li>• Applications where hydrogen sulfide and elementary sulfur exist (up to 145 °C)</li> </ul>
Structure	<ul style="list-style-type: none"> <li>• Modified Nickel Chromium matrix</li> </ul>
Layer thickness	<ul style="list-style-type: none"> <li>• 200 µm optimum</li> </ul>

*Technical Specifications*

Bonding strength	∞ (Infinite; intermetallic bonding)
Micro hardness	≈ 310 HV
Max. operating temperature	950 °C
Surface roughness (Ra)	< 0,4 µm
Wear rate	Depending on application
Porosity	0%
Corrosion resistancy	Class RA 10 - RP 10; ISO 10289 - 1000 hr
Dilution	< 1 %
Heat Affected Zone (HAZ)	≤ 350 HV 5
According to	ISO 5817, DNV-C1 & C2, DNV-M1, M2 & M3

Advice	<ul style="list-style-type: none"> <li>• For applications in which extreme ductility and corrosion resistancy is required</li> <li>• Applications which require resistance to pitting, crevice corrosion &amp; intercrystalline corrosion.</li> <li>• Non abrasive environments</li> <li>• For general and offshore applications</li> </ul>
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Sealing <sup>1</sup> depending on type of oil & temperature	<ul style="list-style-type: none"> <li>• Turcon® M-12 or equivalent (PTFE; Mineral fibers and Additives filled / ≤ 260 °C)</li> <li>• Turcon® T-40 / T-29 or equivalent (PTFE; Carbon fibers / ≤ 260 °C) _ Turcon® MF4 for FDA approved appl.</li> <li>• Zurcon® Z-80 or equivalent (UHMWPE; Ultra High Molecular Weight Polyethylene / ≤ 80 °C _ FDA appr.</li> </ul>
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Guides <sup>1</sup>	<ul style="list-style-type: none"> <li>• Orkot® C380 or equivalent (Composite Polyester resin, polyester fabric; PTFE / ≤ 120 °C)</li> </ul>
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<sup>1</sup> 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.



Information provided in this document is intended only for general guidance and is the best information in our possession at the time. Plating Solutions BV can accept no liability as to the suitability or correctness of the recommendations.