UNPRECEDENTED HIGH-TECH LASER SURFACE TREATMENT FOR HIGH DEMANDING INDUSTRIES

TOPCLAD®
topclad.com

TOPCLAD ® Quarite-N

2020 – REV6

Application and Composition

Application	● Components used in chemical corrosive environments
	● High temperature oxidation and corrosion resistance
	● Components exposed to both extremely low and extremely high temp.
	● Seawater applications, components exposed to acids and chlorides
	● Applications where hydrogen sulfide and elementary sulfur exist (up to 145 °C)
Structure	● Modified Nickel Chromium matrix
Layer thickness	● 225 µm optimum

Technical Specifications

Bonding strength	∞ (Infinite; intermetallic bonding)
Micro hardness	≈ 310 HV
Max. operating temperature	950 °C
Surface roughness (Ra)	≤ 0,2 µm
Wear rate	Depending on application
Porosity	0%
Corrosion resistancy	Class R_A 10 - R_P 10; ISO 10289 - 1000 hr
Dilution	< 1 %
Heat Affected Zone (HAZ)	< 0,2 mm
According to	ISO 5817, DNV-C1 & C2, DNV-M1, M2 & M3

Advice	● For applications in which extreme ductility and corrosion resistancy is required
	● Applications which require resistance to pitting, crevice corrosion & intercrystalline corrosion.
	● Non abrasive environments
	● For general and offshore applications
Sealing[1]	● Turcon® M-12 or equivalent (PTFE; Mineral fibers and Additives filled / ≤ 260 °C)
depending on type of oil & temperature	● Turcon® T-40 / T-29 or equivalent (PTFE; Carbon fibers / ≤ 260 °C) _ Turcon® MF4 for FDA approved appl.
	● Zurcon® Z-80 or equivalent (UHMWPE; Jltra High Molecular Weight Polyethylene / ≤ 80 °C _ FDA appr.
Guides[1]	● Orkot® C380 or equivalent (Composite Polyester resin, polyester fabric; PTFE / ≤ 120 °C)

[1] The information regarding sealing is based on the techical advise of "Trelleborg Sealing Solutions".
However, unknown parameters and conditions may resrict general statements during usage. It is vital that you satisfy yourselve as to the suitability of individual products through adequate engineering/testing. For this reason, and due to the wide range of applications, Topclad BV can accept no liability ns in as to the suitability or correctness of the recommendatiindividual cases. For specific operating conditions please consult your sealing solutions technical representative.

QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001

ENVIRONMENTAL SYSTEM CERTIFICATION DNV·GL ISO 14001:2004

Topclad BV ● Bolderweg 50, 8243 RD Lelystad ●The Netherlands ● +31 (0)320 411.032 ● www.topclad.com ● info@topclad.com