



UNPRECEDENTED HIGH-TECH LASER SURFACE
TREATMENT FOR HIGH DEMANDING INDUSTRIES

TOPCLAD®
topclad.com

TOPCLAD® Stainless Steel 316-L

2016 - REV3

Application and Composition

Application	<ul style="list-style-type: none">● Petrochemical industry● Food industry● Components exposed to acids and chlorides● Salvage and build up of worn or mismachined steel parts
Structure	<ul style="list-style-type: none">● Austenitic Steel (1.4404)
Layer thickness	<ul style="list-style-type: none">● 200 µm optimum

Technical Specifications

Bonding strength	∞ (Infinite; intermetallic bonding)
Micro hardness	≈ 320 - 350 HV
Max. operating temperature	< 530 °C
Surface roughness (Ra)	< 0,4 µm
Wear rate	Depending on application
Porosity	0%
Corrosion resistance	Depending on application
Dilution	< 1%
Heat Affected Zone (HAZ)	≤ 350 HV
According to	n/a

Advice	<ul style="list-style-type: none">● For applications requiring high resistance (pitting & crevice corr.) in chloride environments● For applications which require high impact resistance and tensile strength.● Medium abrasive, general and offshore 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)
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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.



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.