

TecnoDiamond Coatings

Hard and Mirror-Finished Surface Coatings

PR Rolls is experienced to provide *tailored and tested roll coating solutions* for the benefit of its clients globally:

Full Range TecnoDiamond Hard and Mirror-Finished Surface Coatings

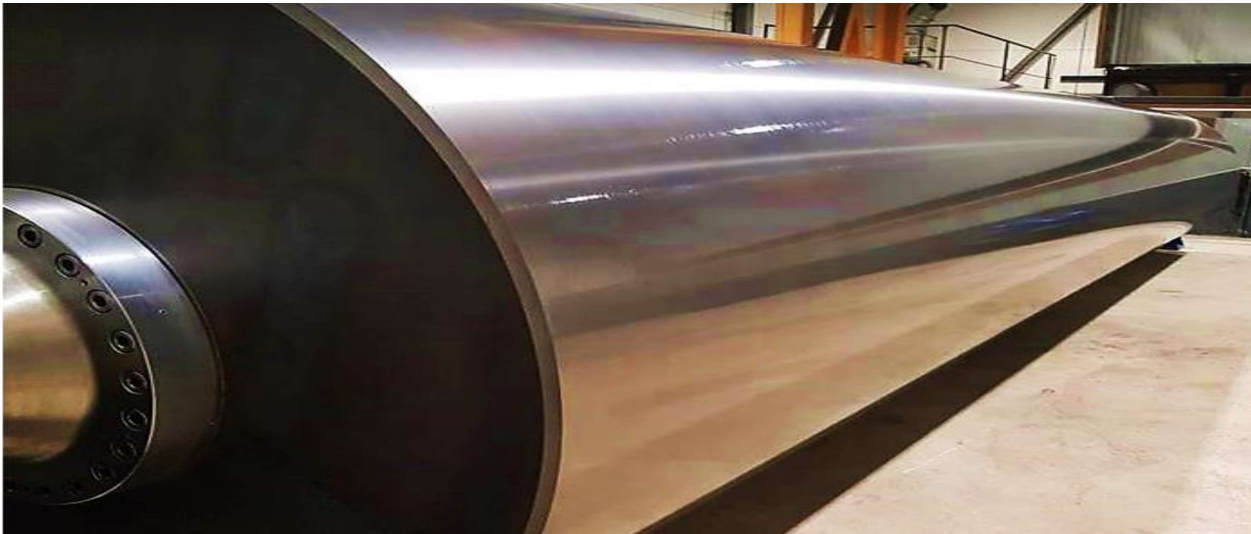
Targets

- Yankee Cylinders
- MG Cylinders
- Dryer Cylinders
- Suction roll shells
- Pick-up rolls
- G-band rolls
- Chilled rolls
- Hard calender rolls
- Pope drums

Typical Problems

- Edge and surface wear
- Porosity
- Casting defects
- Degradation of surface
- Uneven heat transfer
- Reduced shell thickness
- Steam Leaks

Wide selection of spraying materials and thermal coating techniques tailored to meet the requirements of the process and the application.



Full Range PR Rolls

On Site Roll Service Solutions

- Roll condition inspections and measurements
- Porosity and leakage repairs
- General overhaul and modernization
- On Site machining
- On Site balancing

Typical Benefits

- Longer grinding intervals
- Extended roll lifetime
- Consistent paper quality
- Higher corrosion and abrasion resistance
- Improved process economy, reliability and runnability

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TecnoDiamond *Tissue*

Hard and Mirror-Finished Surface Coatings



Full Range PR Rolls
On Site Roll Service Solutions



Solution to Problems

- Edge wear
- Porosity
- Casting defects
- Uneven heat transfer
- Surface degradation
- Uneven, spotty or irregular wear
- Steam leaks

Targets

Yankee Dryer – TecnoDiamond *Tissue*

Benefits

- Lengthen of the roll grinding intervals.
- Hard and smooth surface.
- Corrosion free.
- Extended cylinder life time.
- Good wear resistance and doctoring features.
- Improved thermal properties.
- Excellent creping .
- Grindable.
- Restored and improved paper making properties, paper consistency, thermal properties, process efficiency and runnability.

Technical details

■ **Yankee dryer - *Tissue***

Smoothness 0.4 – 0,6 Ra

Thickness 800 µm

- Hardness as ARC sprayed 595 HV After abrasive load 1180 HV

Technical features can be tailored to application.



Typical microstructure of SA8222 sprayed with SmartArc



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Tailor-made On-Site Solutions for Increased Reliability and Runnability

TecnoDiamond *M.G.*

Hard and Mirror-Finished Surface Coatings



*Full Range PR Rolls
On Site Roll Service
Solutions*



Technical details

M.G. Cylinder - M.G.

- Smoothness 0.04 – 0,15 Ra
- Thickness 100 – 250µm
- Hardness of ready made coating 1300 ± 100 HV
- HVOF-HVAF

Solution to Problems

- Edge wear
- Porosity
- Casting defects
- Uneven heat transfer
- Surface degradation
- Uneven, spotty or irregular wear
- Steam leaks

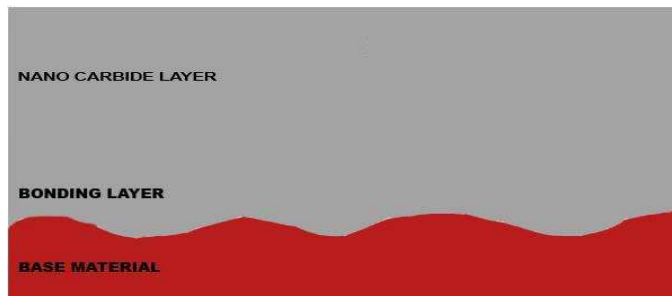
Targets

- **Yankee M.G. – TecnoDiamond *M.G.***

Benefits

- Lengthen of the roll grinding intervals.
- Hard and smooth surface.
- Corrosion free.
- Good wear resistance.
- Extended roll life.
- Improved thermal properties.
- Excellent gloss and glazed properties.
- Restored and improved paper making properties, sheet consistency, overall process economy and efficiency.

EXCELLENT SMOOTHNESS



Technical features can be tailored to application.

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