

Micro Surfacing













Micro Surfacing

- High quality wearing surface (created for use on Autobahn).
- Excellent skid-resistant properties.
- Fast set and cure times allow traffic to return quickly.
- Provides smooth black surface.



Micro Surfacing

- Night-time placement.
- Resists rutting and shoving.
- Seal cracks prior to treatment.
- Long-lasting durability – increased service life of 8-12 years good condition, 5-7 years fair condition.
- Can be warranted.



Application and Versatility

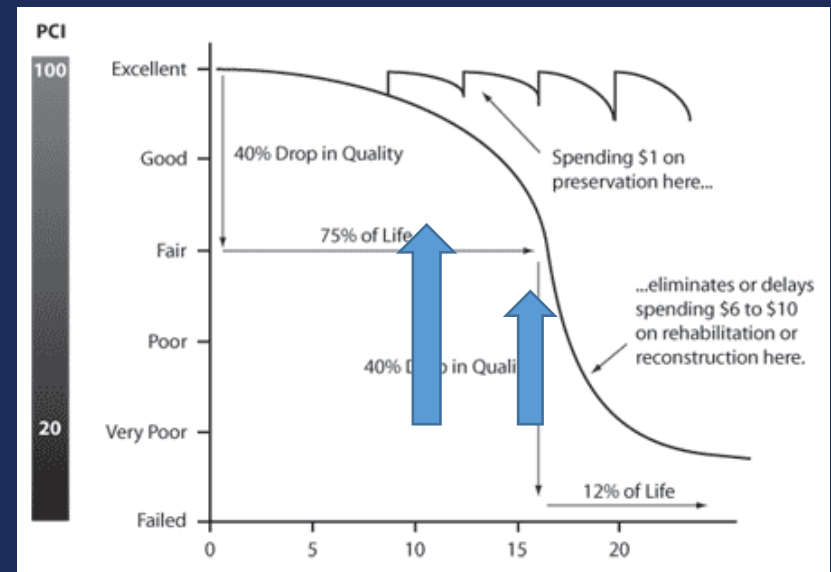
- One-step construction process.
- Stand alone – Single or multiple courses.
- Interlayer – top or bottom layer.
- Rut filling or use as leveling course.
- Fill corrugations, rumble strips or other voids in underlying roadway.
- Corrective application for moderate flushing or bleeding pavements.



Project Selection

- PASER ratings
- Best performance placed higher on deterioration curve.
- Oxidized asphalt pavements.
- Good drainage.
- Previously treated pavements.
- All types of roads and traffic volumes.

Asphalt Aging Curve



Project Selection



Alligator Cracks:

A brittle area of pavement that resembles alligator skin.

Cause: Stress in the asphalt or sub base.

Repair: Removal of deteriorated asphalt and possibly removal of sub base.

Prevention: Proper pavement/sub base installation. Timely crack filling or a pavement maintenance program.

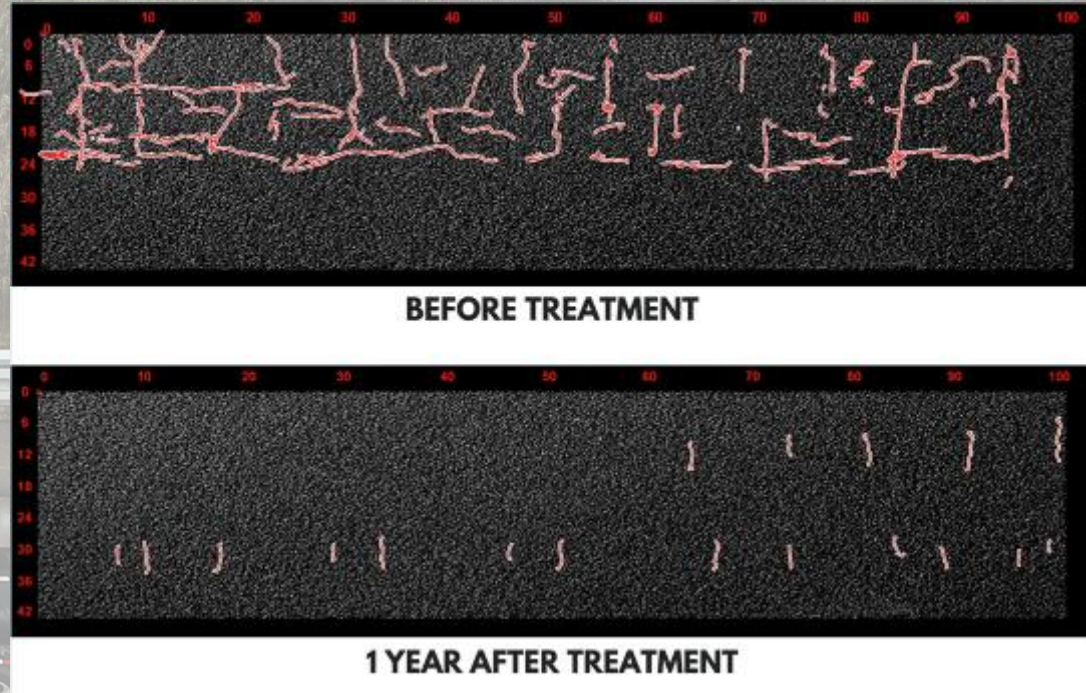


Micro Surfacing Candidates



On top of Traditional Micro
Surfacing benefits, you get:

- Delayed reflective
cracking
- Better cold-weather
aggregate retention
- Improved self healing



Soft-binder Fiberized Micro

RAP Micro Surfacing





Oversized Material



#8 RAP Chip Seal

Screening Operation

RAP in Preventive Maintenance

- MRPA contractors involved in RAP chip seal and micro surfacing tests to find alternatives to virgin aggregates.
- Projects are now reaching 5-year point for evaluation.
- ODOT/FHWA Study with Ohio State University, August 2021
 - Ashland County, Ohio – 100% RAP Chip Seal with CRS2P
 - City of Lancaster, RAP Micro Surfacing

Improving Safety – Added Benefit of CPM

- Micro surfacing is a high-friction surface treatment.
- Higher friction control helps motorists maintain control in both dry and wet driving conditions.
- Cost is substantially less than resins and bauxite used in HFST.







MDOT Test Project – 2025

- High Friction Micro Surface with Calcium Bauxite
- Two Curves on US-12 and M-49, Hillsdale County
- MDOT CPM Engineer conducting multiple friction tests before and after
- Counties have had success with trap rock micro surfacing with no friction testing available
- Additional testing expected with micro surfacing in 2026