

Welcome

North Dakota
ASPHALT
conference

NDSU | UPPER GREAT PLAINS TRANSPORTATION INSTITUTE
NORTH DAKOTA LOCAL TECHNICAL ASSISTANCE PROGRAM



U.S. Department
of Transportation
Federal Highway
Administration



Scrub Seal Basics

Mo Henman – Western Emulsions

North Dakota Asphalt Conference

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Scrub Seals

➤ Scrub Seal is no different than a Chip Seal except:

❖ The use of a scrub broom.

❖ Cracks **MUST** be cleaned out to a minimum depth of ½ inch to allow emulsion to adhere to crack walls

❖ Engineered Emulsion (PMRE)

❖ Viscosity is tailored with rejuvenator and Highly polymer modified

❖ Gauging the amount of emulsion to fill the cracks

What exactly is a scrub seal?

- A more advanced and aggressive multi-purpose chip seal.
- A rapid crack fill technique utilizing a specialized emulsion (PMRE) PASS[®] CR
- Polymer modified rejuvenating emulsion used as the chip binder and rejuvenator in conjunction with a mechanized scrub broom that forces the optimum amount of emulsion into the cracks

Scrub Seals

- **Markets for Scrub Seals**

- ❖ State secondary Roads

- ❖ County Roads

- ❖ City Roads

- ❖ **Post Scrub Surface Treatments**

- ❖ Post Fog Seals are strongly recommended as a minimum

- ❖ Cape Seals (Micro-Surfacing and Slurry Seals)

- ❖ The determination of the type of surface treatment is based on desired road texture and climatic or geographic zone

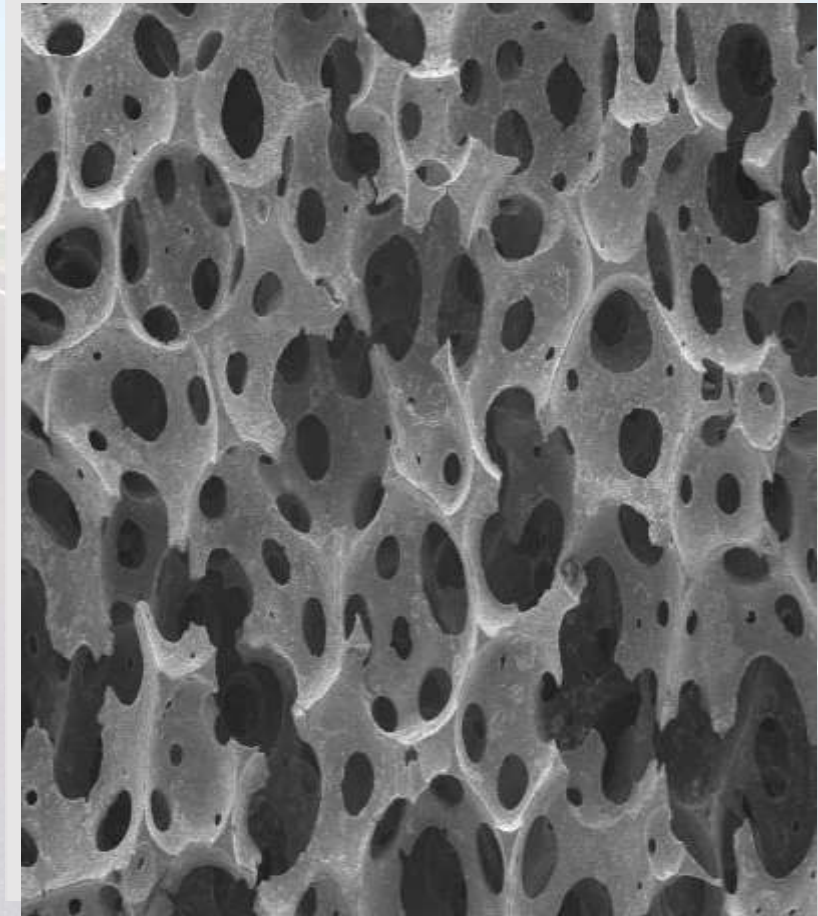
Benefits of Polymer Modified Emulsions or PME

Improved adhesion (less chip loss)

Improved resistance to flow at high temps

Improved flexibility at low temps

Longer service life



Benefits of Asphalt Rejuvenates

- Restores the proper balance among the five asphalt components
- Restores flexibility and ductility to the top portion of the old, brittle pavement
- Soften the surface and combine with the asphalt in the top portion of the pavement, extending the time in which aging takes place
- Highly Polymer Modified – Highly Flexible
- Rejuvenating Agent - adhesion to face of crack walls
- Engineered for Northern Climate Extremes

Scrubs Cont.;



Scrubs; One Step Process



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