NEW PRODUCTS AND PROCESSES IN PAVEMENT PERSISTATION

CALIFORNIA CHIP SEAL ASSOCIATION CONFERENCE
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SACRAMENTO, CA
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INTENT OF THIS PRESENTATION

- Introduce products and processes that are new to this market
- Introduce the nature of the product or process
- Introduce the intent of the innovation
- Provide contact information for follow up questions
DISCLAIMER

- Not an advertisement for any of the products or processes
- No endorsement or criticism of products and processes are intended or implied
- Not all inclusive – there are products and processes that I may not yet know about
MENU

- Warm Mix Asphalt Rubber Chip Seal
- Warm Mix Terminal Blended Rubber Chip Seal
- FiberMat
- Rubberized Emulsion Aggregate Seal (R.E.A.S)
- CQS-TR
WARM MIX AR CHIP SEAL – WHAT IS IT?

- Start with Type I or Type II Asphalt Rubber
- Warm mix additives added during blending process or added post reaction
- Foaming technologies are not recommended
WARM MIX AR CHIP SEAL –
INTENT OF INNOVATION

- Reduce application temperature from 390°F - 410°F down to 320°F - 335°F
- Reduce emission and odor
- Eliminate the need for proprietary equipment (fume hood)
- Reduce worker exposure to harmful emissions
- Improve workability of binder
- Reduce oxidative binder aging
WARM MIX AR CHIP SEAL – CONTACT INFORMATION

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- Jason Lampley, ISS, (209) 613-8573, jason.lampley@asphaltrubber.com
WARM MIX TERMINAL BLEND
RUBBER CHIP SEAL – WHAT IS IT?

- Start with PG76-22TR
- Warm mix additives added during blending process or added post reaction
- Foaming technologies are not recommended
WARM MIX TERMINAL BLEND RUBBER CHIP SEAL – INTENT OF INNOVATION

- Reduce application temperature from 350°F - 360°F down to 330°F - 340°F
- Reduce emission and odor
- Eliminate the need for proprietary equipment (fume hood)
- Reduce worker exposure to harmful emissions
- Improve workability of binder
- Reduce oxidative binder aging
WARM MIX TERMINAL BLEND
RUBBER CHIP SEAL – CONTACT INFORMATION

Jim Ryan, Paramount / Alon USA, (661) 392-3630, jryan@ppcla.com
FIBER MAT – WHAT IS IT?

- Crack resistant membrane produced by a polymer modified asphalt emulsion and engineered fiberglass strands
- Can be used with a chip seal or thin overlaid on top
FIBER MAT – INTENT OF INNOVATION

- Provide a waterproof membrane
- Fiberglass reinforcement to absorb stresses
- Delay the propagation of cracks to the surface
- Restore skid resistance
- Recyclable surface
FIBER MAT – CONTACT INFORMATION

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R.E.A.S. – WHAT IS IT?

- Rubberized Emulsion Aggregate Seal (R.E.A.S)
- Finely ground tire rubber suspended in a polymer modified emulsion with chemical thickener
- Mixed with Types I, II and III aggregate and applied as a slurry seal
- Only available as central plant mix (premixed emulsion and aggregate)
R.E.A.S. – INTENT OF INNOVATION

- Use recycled tire rubber as part of slurry seal
- Green and recycle tool
- Higher vis = More lbs of mix / SQ. YD. = thicker wearing surface
- Black surface color adds to the esthetic appearance of the slurry seal
R.E.A.S. – CONTACT INFORMATION

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- Katrina Thompson, PMI, (714) 722-7275, katrina@pmitechnology.com
CQS-1h TR – WHAT IS IT?

- Slurry seal emulsion with recycled ground tire rubber
- Tire rubber is incorporated (dissolved) into the asphalt base
- Rubber modified asphalt is then emulsified into a CQS type emulsion
- Mixed with Types I, II and III aggregate for slurry seal
CQS-1h TR – INTENT OF INNOVATION

- Use recycled tire rubber in a standard slurry seal emulsion
- Green and recycle tool
- Easy to apply with standard slurry seal equipment
Jim Ryan, Paramount / Alon USA, (661) 392-3630, jryan@ppcla.com
Fiber Reinforced Micro Surfacing
– Road Science

Chip Seal Over Fiber Glass
Paving Mat – Western Oil & Spreading
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- Mr. Jonathan Layne, Sully-Miller
- Mr. Bill Robertson, PMI
THANK YOU FOR YOUR ATTENTION

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