Rubberized Asphalt Concrete (RAC)

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CalRecycle
• Crumb Rubber Manufacturing
• Crumb Rubber Uses
• RAC Use in California
Crumb Rubber Manufacturing
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Granulation 2” (50mm) Chips Reduced to 3/4” (19mm) Removing Steel
Granulation 3/4” (19mm) Reduced to 1/4” (6mm) Separating Fabric and Steel
Granulation 1/4” (6mm) Reduced to 20-60 Mesh
Crumb Rubber Processing Equipment

• Primary Shredder (Whole tires down to 50-200mm shreds)
• Secondary Shredder (50-200mm down to 19mm with metal separation)
• Granulator (19mm down to 6mm minus with fabric separation)
• Finish Mill (6mm down to 60mesh)
UTILITIES:
• 380 volts AC – 50 hertz 3 phase.
• Average power usage is 900 kW/hr
• Also need compressed air (120 SCFM) @ 100 PSI. Water for spark suppression/deluge required.

PERFORMANCE DATA:
• Can operate 20 hours per day and 250 days per year, achieving 5,000 hours annually.
• The plant can process 4.0 t/hr (2M pte/a) into approximately 2.4 t/hr of granulate

COST
• $3-4M US Dollars
Crumb Rubber Uses

• Tire-Derived Products (TDP)
• Synthetic Turf Fields
• RAC
Crumb Rubber Uses

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Synthetic Turf Fields
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- RAC
Asphalt Rubber has been used in California since the late-1970’s.

Terminal Blend has been used in California since the late-1990’s.

The use of RAC by City and State Agencies currently consumes about five million waste tires per year.
Why Continue to Support RAC?

- Largest recycling use of waste tire rubber
- Demonstrated superior performance of RAC over conventional asphalt concrete (AC). Long-lasting durability; Resists reflective cracking
- Shown to be a cost effective resurfacing option over conventional AC
Questions?

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