

TEXAS DEPARTMENT OF TRANSPORTATION

EVOLUTION OF TACK COATS IN TXDOT

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Date

Summary

- Tack coats used to be a minor item
- New developments have focused attention
 - Grids
 - Track resistant tack
 - Spray pavers
 - Ultra thin mixes
- TxDOT's idea of tack has evolved

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Tack Coat the Old Way

- Subsidiary to HMAC spec
- CSS-1H, SS-1H, (no dilution) or PG 58
- Specified rate 0.04 gal/SY to 0.1 gal/SY
- Uniform
- Sometimes underseal
 - “seal coat”

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“Trackless Tack”

- First proposed for fiberglass grid.
 - Pavement reinforcement
- Provides bond through the grid
- Protects the grid
- Helps get a good installation
- Soon replaced by hot applied

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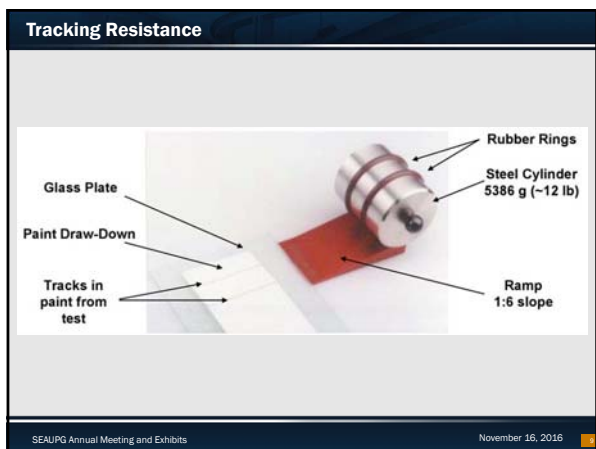
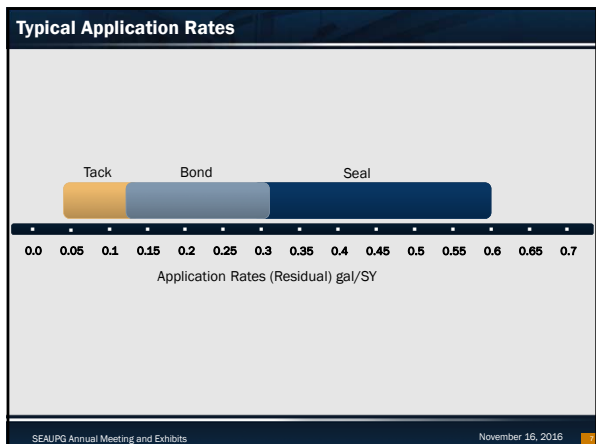
Spray Paver

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Track Resistant Tack Come to Regular Paving

- Lots of suppliers/products
- Bond strength – how much?
- Rheological properties?
- Track resistance testing
- How to specify?
 - Proprietary products
 - Competing treatments

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- ### Further Investigation
- FHWA/AI tack webinar
 - University research
 - Industry discussion and feedback
 - Various independent efforts in TxDOT
 - Conclusion - two different treatment types
 - "tack" vs. "seal"
 - Different rates
 - Different goals
 - Different materials
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Tack vs. Seal – Two Approaches

Tack	Underseal	Commonalities
Part of mix spec <ul style="list-style-type: none"> ▪ Similar to old way ▪ Low application rate (0.04 to 0.1) ▪ Clarify residual rate ▪ Subsidiary item ▪ Inspection is priority <ul style="list-style-type: none"> ▪ Uniformity ▪ Test strip 	Separate Spec <ul style="list-style-type: none"> ▪ Type 1: Seal coat ▪ Type 2: Spray paver ▪ Type 3: Track resistant spray applied asphalt ▪ Option to require any type or allow options 	<ul style="list-style-type: none"> ▪ Performance testing (bond and track) ▪ Rheological properties as index ▪ Prequalified list ("TRAIL")

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