

This trackless bond coat was shot for ALDOT on SR-102 in Walker County. Full proper coverage of bond coat and quick return to paving are features for this treatment.



This is a premium bond coat that save the contractor money, because it breaks quicker, is trackless and the contractor can pave faster.



This is an emulsion so there are significant heat savings over hot AC.



Can pave over bond coat as quick as 15 minutes on a 90 degree day. Times to break are longer if pavement and air are cooler.



Extends the life of the pavement, because there is less tracking of the bond coat. Less tracking leads to more glue from the pavement layers thus less potential for cracking and shoving of the top binder layer.



Less tracking of tack due to trackless properties leads to more bond between pavement layers. This leads to longer lasting pavements.

BACKSTORY:

The project is located on SR-102 in Walker County. This is located in the ALDOT West Central Region. The weather started off in the mid 50s and rose to the low 70s.

PROBLEM:

Goodhope Contracting Co. Inc. was on a strict timeline due to a wet spring that slowed their paving operations down. They needed a premium bond coat that would set up faster than commodity bond coats, so they could speed up production. They chose a trackless bond coat, because this product allowed the contractor to pave hot mix much quicker than a commodity bond coat.

The Trackless tack was shot at 0.08gal/sy. The contractor used an Etnyre Distributor with #1 nozzles. Etnyre says this size nozzle can shoot a rate of 0.05-0.20gal/sy. The correct nozzle size used on this project, provided great uniform coverage of the bond coat throughout the project. This would prove essential to bond the pavements so that layers would perform as one monolithic pavement.

SOLUTION:

At less than 1% of the total project cost, tack is an extremely important part of the paving process. Many tack and bond coats have a reputation for spreading excess material across the job site or tracking. The trackless bond coat used on this job minimized tracking, preventing it from being spread across or outside the working area. This trackless bond coat provided a solid grip on the subsequent asphalt layer, reducing the chance of slippage or long-term cracking from the pavement layers moving independent of one another under traffic loads. With minimal tracking, faster break times and strong adhesion, the trackless tack achieved a no-slip bond between the asphalt layers.

Cores were taken in 500' intervals for this project. The bond strengths averaged over 200psi, proving that the trackless tack provided a very strong bond between the pavement layers. The minimum passing for core bond strengths is 100psi.

PHOTOS:



Prior to shooting trackless tack and checking each nozzle.



Correct Nozzle Size #3354904 which is a #1 nozzle



Uniform Shot Rate (Not Broken)



Broken Tack (Uniform Coverage)



Shot Rate on Distributor Computer 0.08gal/sy



Cutting Cores



Core Cut showing tack bonded Pavement Layers



Paving Hot Mix



Perfect Uniform Coverage of Broken Trackless Tack