

# Best Practices for Ensuring Uniform Mat Texture Flexible Pavements of Ohio Field Operations Committee

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## Production and Hauling

- Manage the aggregate at the plant to ensure uniform gradation is maintained during stockpiling and transferring aggregate to cold feeds.
- Observe mix discharge from the drum to the drag for uniform composition in terms of mix gradation and binder coating.
- Confirm batchers and deflector plates are operating properly to deliver material un-segregated into the silo.
- Load trucks with three or more drops with trucks repositioning between drops. When loading end-dump trucks load near equal increments of mix in the following sequence: (1) against bulkhead, (2) against tailgate, (3) mid-bed. After loading check for signs of segregation.
- At the paving site, prior to discharging mix from end-dump haul trucks into the paver follow this sequence (1) raise truck bed causing mix to shift against tailgate, (2) back into paver with bed elevated, (3) trip gate to deliver asphalt mix in a mass into the hopper.

## Paving

- Ensure the paver is in good working order and is equipped to prevent paver induced segregation at the centerline or edges of the conveyors.
- Ensure that flow gates, tunnel extensions, screed extensions, and auger extensions are in place, operational, and adjusted to ensure a completely uniform texture across the full width of the mat.
- Ensure mix delivery rate to the auger results in near-constant auger movement and a consistent level of mix in the auger chamber

(to approximately the center of the auger shaft).

- Maintain a consistent paver speed as dictated by mix delivery, mix temperature and weather. Adjust paver speed to allow truck exchanges without running out of mix.
- Keep hopper greater than half full at all times.
- Don't fold the hopper wings. Use fillets in hopper corners to keep all mix mobile.
- Constantly check the trucks, paver hopper, and mat for signs of mix non-uniformity. Take immediate corrective action if mat texture uniformity is compromised. (Note: "Shading" in the mat is evidence of non-uniformity and requires correction.)
- Use a remixing transfer device if all else fails. (Note: A transfer device will not correct paver induced segregation.)

## References:

### Alberta Transportation:

- Paving Guidelines and Segregation Rating Manual

### Asphalt Institute:

- MS-22, Construction of HMA Pavements

### Flexible Pavements of Ohio:

- Scherocman, J., P.E., (2010, Spring/Summer, Fall, 2011 Winter), Segregation: Causes and Cures, *Ohio Asphalt*

### National Asphalt Pavement Association:

- QIP-110E, Segregation, Causes and Cures for Hot Mix Asphalt
- QIP-112E, Constructing Quality HMA Pavements - A Troubleshooting Guide
- PH-1, Hot-Mix Asphalt Paving Handbook 2000 2nd Edition



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Flexible Pavements of Ohio (FPO) is an association representing the interests of the asphalt paving industry in the state of Ohio to federal, state and local governments, private industry and other construction organizations. FPO supports active educational, technical and outreach programs designed to improve and advance quality asphalt construction.