



“Creating a Safe Environment for All Road Users”

DPI Extrusion Thermoplastic

Product Description

DPI Extrusion Thermoplastic Pavement Marking Materials are non-hazardous and environmentally friendly products used for delineating various road surfaces to enhance safety and provide guidance for all road users. The binder systems are based on alkyd resins. Due to their excellent wear-resistant durability, resistance to diesel drop, high retro-reflectivity, and anti-slip properties, DPI Extrusion Thermoplastic Pavement Marking Materials are particularly well-suited for heavy-traffic roads and 'black-spot' areas.

Physical and Chemical Properties

Whiteness/Luminance	> 80% (White)
Glass Beads Content	≥ 20%
Flash Point Temperature	> 230°C
Softening Point	> 100°C
Density	2.0 - 2.1 g/cm ³
Skid Resistance	> 45 BPN
Abrasion Resistance	< 400 milligram for 500 cycles
Application Temperature	190°C - 210°C

Weather Conditions

It is recommended to apply DPI Thermoplastic under the following conditions on both asphalt and concrete surfaces.

Temperature

Min / Max Air temp	10°C - 40°C
Mini / Max Road temp	10°C - 60°C

Humidity & Dew

Subsurface moisture may be present in sufficient amounts to affect bonding during dew and fog in the early morning or after rain. Moisture can lead to blisters on hot-melt Thermoplastic and poor bonding. If these conditions arise, it is advised to halt the application. A quick moisture test is recommended before proceeding with the application.



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Quick Moisture Test

Tape a 30 cm square sheet of thin plastic to the road surface, ensuring all edges are sealed. After 15 minutes, examine the bottom of the sheet and the road surface. If more than a sparse amount of moisture is present, do not apply thermoplastic.

Application Guideline

The application of DPI Extrusion Thermoplastic is applied through professionally trained personnel using automatic control truck mounted auger fed equipment. Proper safety gears and protection wears are essential during the application. Ensure the thermoplastic is liquefied completely with constant upward stirring to make sure glass bead is homogenous. The material temperature for application is recommended to be 190°C to 210°C depending on the substrate and ambient temperature is within the range of 10 – 60°C. If temperature is over 230°C, discolouration will occur, decomposition of thermoplastic will take place, and explosive gas may be generated.

Do not apply thermoplastic materials on a freshly laid bituminous asphalt surface. It requires weathering for 20 - 30 days before application. It is noted that the product is not suitable for road with frequent heavy-duty trucks. Stop right away if there is any doubt of peeling issue, especially where markings exist, or the job site roadway surface is concrete, loose or oxidised. **Worn and concrete surface must be applied with a coat of DPI Thermo Primer.**

Remove existing, worn and loose pavement markings such as waterborne paints, solvent borne paints and cold applied plastics by grinding before applying thermoplastic to form proper bonding.

Clean out dirt, loose particles, oil and grease patches before applying. Ensure the road surface is completely dry before application of material especially under conditions of heavy rainfall, low ambient temperature, and heavy mist. Delaminating will occur if road surface is wet. Do not apply if road surface temperature is less than 10°C, unless the road surface is preheated to above 10°C before applying.

At the end of work, please do not switch off preheater and applicator at high temperature. continue stirring until the molten thermoplastic temperature is below 120°C to prevent from carbonised material.

Shelf Life and Storage

Please store under cover and in cool and dry condition. Recommended product shelf life is 12 months from the product received date.



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Health and Safety

Before using this product, please consult our Material Safety Data Sheet (SDS) for information on safe handling and storage.

Our Quality Commitment

Dura Products Industries-DPI focuses on longstanding commitment to continue its outstanding service to customer, and continuously strive for quality improvements and development of new and highest quality road safety products. Our long-term aim has always been to “Create a Safe Environment for all Road Users”.

DPI holds ISO 9001:2015, ISO 17025:2017, and APAS certificates, adhering to the Australian Standard Specification AS 4049.2, NSW RTA/RMS QAS 3357, and APAS 0041/4.

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