Non-Reflective Screed/Extrusion

APPLICATION INSTRUCTIONS

PRODUCT

Thermoplastic Road Markings – Non-Reflective Screed/Extrusion Grades

APPLICATION CONDITIONS

- Road surfaces (or existing road markings which are to be overlaid) shall be free from defects.
- Existing road markings that are going to be overlaid shall be removed if they are in poor condition, or the new road marking will increase the overall thickness to more than 6mm.
- Road surfaces must be completely dry and free from any dirt or de-icing salts.
- Dirty or contaminated road surfaces should be thoroughly cleaned prior to the application of road markings to ensure the formation of a strong bond between the new road marking and the road surface.
- Damp surfaces should be completely dried with high velocity driers. Insufficient drying will result in moisture forming between the road marking and road surface creating poor adhesion.
- An allowance for extra material should be considered when applying road markings to surfaces with a coarse or negative texture such as surface dressing, porous asphalt, SMA or high friction surfacing.
- It is recommended to prime smooth asphalt surfaces and those which are old with polished aggregate with CP primer.
- Newly laid concrete surfaces should be allowed to cure for approximately four weeks prior to the application of road markings to avoid reactions with the concrete curing agents.
- Curing agents not removed by traffic action should be manually removed from the concrete surface prior to the application of road markings.
- It is recommended to use CP primer when applying road markings to concrete surfaces.
- CP primer should be used when applying thermoplastic road markings on top of paint.
- An air/ground temperature of 5°C or above is required when applying road markings to ensure proper adhesion between the road marking material and the road surface.
- In cool weather and conditions with a significant wind chill factor, a high velocity drier should be used to warm the surface prior to the application of road markings to ensure that before the road marking material solidifies, a physical bond is formed between the molten material and the road surface.

UK
info@prismoglobal.com
+44 (0) 1257 225 100

ITALY
vernisolinfo@prismoglobal.com
+39 0377 621250

SOUTH AFRICA
RSAinfo@prismoglobal.com
+27 (0) 11 473 1057

Head office: Prismo Road Markings Limited. 5 Drumhead Road, Chorley North Industrial Estate, Chorley, PR6 7BX, UK.

HEATING

- Ensure the pre-heater is empty prior to loading material or changing material grades, as any contamination from the residue of previously heated material may have a detrimental effect on the performance of the selected grade.
- Place entire bags (contents and Meltpack bag) into the pre-heater. Initially load bags until the pre-heater is approximately 30% full. Heat and stir the material to a fully molten state, then progressively add bags until the required amount is reached.
- Allow the content of the pre-heater to fully melt and reach application temperature, ensuring that all the components have been homogeneously mixed and dispersed, and there are no visible clusters of dry powder in the mixture. Avoid 'feeding' the pre-heater during use to prevent the contamination of homogenous material with dry non-mixed material.
- Ensure the material is within the correct application temperature range:
    - White materials: Machine applied 190°C to 210°C. Screed applied 170°C to 190°C.
    - Yellow materials: Machine applied 190°C to 200°C. Screed applied 170°C to 190°C.
- Use a calibrated hand-held thermometer with probe immersed in the material to obtain temperature readings as pre-heater temperature gauges may not always give a reliable or accurate temperature reading.
- Do not overheat the material:
    - Maximum safe heating temperature for white materials is 230°C.
    - Maximum safe heating temperature for yellow and other colours is 200°C.
- **IMPORTANT:** Prolonged heating times and repeated heat cycles may result in the degradation and discolouration of the product. For best performance, maximum heating time is six hours for one heat cycle.

APPLICATION PROCESS

The material is applied using a hand mould, various self-propelled equipment or a purpose-built vehicle equipped with a thermoplastic extrusion system for applying extruded flat road markings.

- For letter, arrows, symbols, etc. and longitudinal markings where it is not practical to use a purpose-built vehicle, a pre-heated hand mould or self-propelled equipment is used for the application of the road marking. The material is screeded to the required width with a typical line thickness of 3mm.

UK
info@prismoglobal.com
+44 (0) 1257 225 100

ITALY
vernisolinfo@prismoglobal.com
+39 0377 621250

SOUTH AFRICA
RSAinfo@prismoglobal.com
+27 (0) 11 473 1057

Head office: Prismo Road Markings Limited. 5 Drumhead Road, Chorley North Industrial Estate, Chorley, PR6 7BX, UK.

- For major longitudinal marking works, a purpose-built vehicle fitted with a thermoplastic extrusion system is generally used. Maintain a vehicle speed of 4-6 km/hr. Extrude the material to the required width with a typical line thickness of 3mm. Higher speeds are not advisable as this will reduce the width of the road marking and introduce voids into the material. Poor application will reduce performance.

TROUBLE SHOOTING GUIDE

Thermoplastic	Reason	Corrective Action
Poorly defined edge	Blocked applicator shoe Material temperature too low Application speed too fast	Clean out shoe Increase temperature Decrease application speed
Holes or tears in lines	Contaminated material Blocked filter Application speed too fast	Replace material Clean or replace filter Decrease application speed
Material too thin	Material temperature too high Insufficient output rate Application speed too fast	Decrease temperature Increase auger speed Decrease application speed
Poorly coalesced line	Poor spray pattern Material temperature too low	Increase spray pressure Increase temperature
Uneven line profile	Poor spray pattern Blocked or worn jet	Adjust spray pressure Clean or replace jet
Debonding	Unclean road surface Low temperatures Moisture in road surface	Clean and dry surface Monitor ambient/material temps Dry road surfaces
Bubbles in line	Moisture in road surface	Dry road surface
Greenish yellow appearance	Material overheated Material reheated too often Pre-heaters need cleaning, traces of yellow thermoplastic	Monitor material temperatures Only heat enough material for current works Clean pre-heaters before loading material
Dull white appearance	Material overheated Material reheated too often Pre-heaters need cleaning, traces of yellow thermoplastic	Monitor material temperatures Only heat enough material for current works Clean pre-heaters before loading material

UK
info@prismoglobal.com
+44 (0) 1257 225 100

ITALY
vernisolinfo@prismoglobal.com
+39 0377 621250

SOUTH AFRICA
RSAinfo@prismoglobal.com
+27 (0) 11 473 1057

Head office: Prismo Road Markings Limited. 5 Drumhead Road, Chorley North Industrial Estate, Chorley, PR6 7BX, UK.