

CRYSTALITE

Hot Melt Thermoplastic Product Data Sheet

Product Description:

Crystalite Thermoplastic is a high performance long life roadmarking system designed to meet and exceed AS4049, being produced in APAS Registered Manufacturing facilities. Formulations can be tailored to different price points and performance criteria

It comes in the following application formats:

Screed - For transverse and short longitudinal markings

Extrusion - Flat line longitudinal markings by machine application

Profile - For raised profiled ribs at 8-10mm to increase road safety in longitudinal applications

Application:

Application temperature will depend greatly on application, ambient temperature and surface.

Being a hot melt adhesive, temperature must be increased to ensure adhesion in colder temperatures and decreased in warmer temperatures to minimise dry time and tracking.

APPLICATION TO CONCRETE SURFACES MUST BE APPLIED AT MIMUM 200 DEGREES. ALL CONCRETE SURFACES MUST BE PRIMED PRIOR TO APPLICATION.

Crystalite Profile Thermoplastic is formulated to be applied at 185-195 degrees on asphalt and bitumen surfaces, and minimum 200 degrees on concrete surfaces. Please contact Crystalite if you have a large scale concrete job so we can tailor the formula to ensure adequate rib height occurs at this temperature.

Crystalite Screed Thermoplastic is designed to be applied at 190-200 on asphalt and bitumen surfaces and 200+ on concrete surfaces.

Crystalite Extrusion Thermoplastic is formulated to be applied at a wide range of temperatures. Ideally at 30 degrees, it is applied at 185-190 degrees. With each 10 degrees lower ambient air temperature, the material should be raised 10 degrees to compensate; e.g. 195 @ 20, 205 @10. Being dropped on to the surface at a set thickness, extrusion thermoplastic is far more susceptible to temperature absorption / loss from cold surfaces than profile or screed as it does not have the large residual amount of material insulating it for longer hence application temperature must be diligently monitored.

ALL THERMOPLASTIC SHOULD NOT BE APPLIED BELOW 10 DEGREES.

Below these temperatures, adhesion can not be guaranteed and will fail completely if applied below 7 degrees.

If circumstances insist that the material is being applied between 7-10 degrees, temperature must be at a minimum of 205 degrees , with adhesion being checked regularly by hammer and bolster.

Purging Trays must be taken prior to each run when machine applying. Temperature must be accurately measured by infrared thermometer coming out the head of the machine into the tray. Temperature probes and gauges on the machine must be only used as a guide only as they typically prove inaccurate. Normally 3-4 trays should see the material at a consistent temperature. Some machines may experience poor oil circulation and more trays may be necessary. The head should be reading the same temperature as the oil temperature on the hot oil outlets.

Preheaters and agitators should be set at a maximum of 30 RPM to avoid excessive shear, particularly with profile thermoplastic.

Thermoplastic should be reheated a maximum of 2 times and at application temperature for 8 hours, ensuring that only the amount needed is cooked for each shift. Reheating thermoplastic jeopardises the integrity of the binder package through prolonged heat exposure.

All augers and heads should be drained at the end of each shift to avoid settling.

Physical Properties:

Item	Standard
Luminence	<80%
Binder Content	18-22%
Glass Bead Content	<25%
Specific Gravity	2 g/cm ²
Spherical Intermixed Beads	<80%
Refractive Index	<1.5

Storage & Transport:

Crystalite Thermoplastic should be stored in a dry undercover space with stock being rotated on a first in, first out basis as a useable life span is 6 months from order date. It is classified as a non Dangerous Goods product when in its unmolten form. Please note that when molten in kettles thermoplastic does become a Class 9 Elevated Temperature Dangerous Good once passing 100 degrees. Please check with local regulations.

Support & Service:

24/7 Support is available on +61 4 07 766 796

Training is available on-site complimentary

Please contact Crystalite to ensure that the material is fit for purpose prior to ordering through sales@crystalite.com.au or (02) 65 66 77 666

ALWAYS REFER TO SDS PRIOR TO USE