

Applying Material

Problem	Cause	Solution
Ragged line edges when extruding	Dirty screed box	CAREFULLY clean box. Discharge opening and screed box plate runners need to be free of debris.
	Cold material temperatures	Heat material as required.
	Marking speed too fast	Slow ThermoLazer speed.
Rough material surface when extruding	Overheated material	Reduce heat.
	Moisture on road surface	Allow road surface moisture to dry.
	Rough road surface	Smooth road surface.
	Screed box low on material	Add material to screed box.

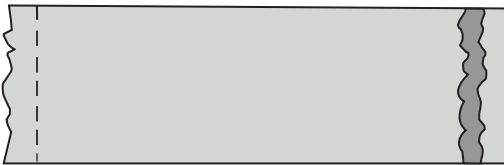
EXAMPLES:

Correct line application will produce a full straight line with sharp edges; correct color, thickness and width; a firm bond to the surface; and have uniform reflectivity.



ti14507a

Insufficient adhesion (material bulges at beginning of line)

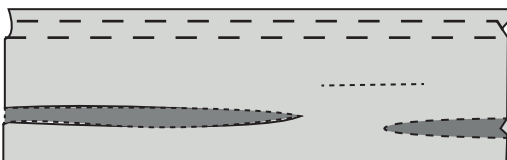


ti14508a

- Material temperature too low
- ThermoLazer speed too fast
- Debris on road
- Surface temperature too cold

- Raise material temperature.
- Decrease speed of ThermoLazer.
- Clear debris from road.
- Wait for temperature of surface to raise.

Rough and bumpy line

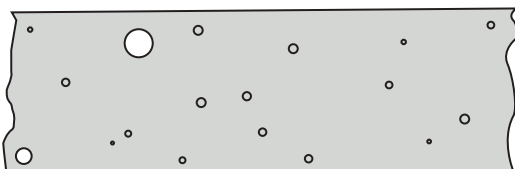


ti14509a

- Debris on surface
- Crust from overheated material
- Debris caught in screed box
- Material not covering road high spot

- Clear debris from surface.
- Lower material temperature.
- Clean debris from screed box.
- Adjust screed box line thickness.

Gas bubbles in line

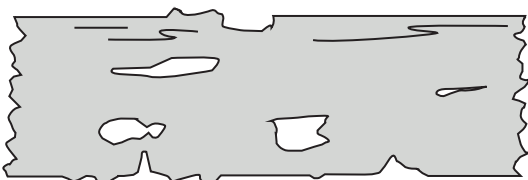


ti14510a

- Moisture or solvent on surface
- Material is overheated

- Remove solvent from surface.
- Lower temperature of material.

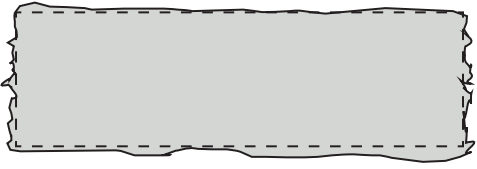

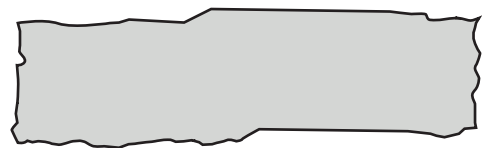

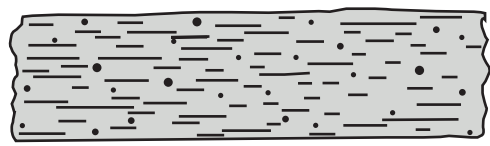
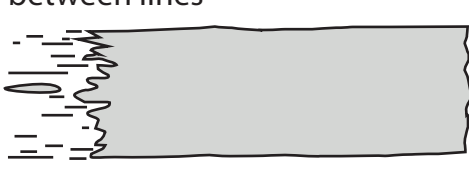
Ragged edges and gaps in line



ti14511a

- Material temperature is too low
- ThermoLazer speed is too fast

- Raise material temperature.
- Wait for change in ambient conditions to remove moisture.
- Reduce ThermoLazer speed.

Problem	Cause	Solution
<p>Swollen rounded line</p>  <p>ti14512a</p>	<ul style="list-style-type: none"> Material temperature is too high 	<ul style="list-style-type: none"> Lower material temperature.
<p>Material shadows on sides</p>  <p>ti14513a</p>	<ul style="list-style-type: none"> Uneven road surface Screed box is not evenly riding on substrate 	<ul style="list-style-type: none"> Apply to even road surfaces. Remove debris from screed box lever rod. Inspect/replace damaged screed box lever rod/lever arm.
<p>Line is wavy</p>  <p>ti14514a</p>	<ul style="list-style-type: none"> Strong road surface camber Incorrect ThermoLazer operation 	<ul style="list-style-type: none"> Apply so camber does not influence application. Use correct application methods (for example, try locking swivel wheel).
<p>Cracks in line</p>  <p>ti14515a</p>	<ul style="list-style-type: none"> Cracks in road surface Temperature stress from overheating Material applied too cold Material applied too thin 	<ul style="list-style-type: none"> Repair cracks. Lower temperature in material. Increase material temperature. Slow ThermoLazer speed to apply thicker material.
<p>Rough edges and lines in surface</p>  <p>ti14516a</p>	<ul style="list-style-type: none"> Material temperature is too low Material is overheated or scorched Moisture in road surface 	<ul style="list-style-type: none"> Raise material temperature. Lower material temperature. Wait until road surface is dry.
<p>Jagged line ends; mterial drips between lines</p>  <p>ti14517a</p>	<ul style="list-style-type: none"> Screed box does not fully close Debris caught in screed box Worn screed box shear bar Worn screed box trough shear bar stop Surface temperature too cold 	<ul style="list-style-type: none"> Clean screed box. Clear debris from screed box. Replace screed box gate. Replace screed box trough. Allow surface temperature to increase.