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## SAFE OPERATING PROCEDURES

### Thermoplastic Paint Truck

SOP 12A-45

#### Hazard Review

Eye Hazards  
Lifting  
Noise

Thermal Burns  
Eye Injury  
Body Positioning

Pinching and Crushing Injuries  
Respiratory  
Traffic

#### Required Personal Protective Equipment (PPE)

Safety Shoes  
Respirator (APR or PAPR)  
Safety Vest

Safety Glasses/Face Shield  
Heat Resistant Gloves  
Long Sleeves/Sleeve Guards

Hearing Protection  
Chemical Apron

1. Drivers must perform a pre-operational check of the equipment, be familiar with the operator's manual and report all needed repairs promptly to equipment. Do not use any equipment that needs repairs or is determined to be unsafe.
2. Employees who have never used thermoplastic material/equipment need to be aware that safe-handling practices are a must when dealing with this material, because it is applied at such high temperatures. Severe burns can be caused through careless handling of hot thermoplastic and unsafe equipment operation practices.
3. Supervisors must verify that drivers, operators and support personnel have been trained in the proper operation of the thermoplastic truck, associated equipment and hazards. Any time the crew is changed, the new crew members must be trained in the use of the equipment.
4. Employees must follow the specific start-up procedures, procedures for applying material to the road and shut-down procedures for the thermoplastic truck provided by the manufacturer.
5. All safety devices must be operational at all times. Do not remove, tamper with or disconnect any safety devices.
6. Employees must wear long-sleeved shirts/sleeve guards, long pants, safety shoes, safety glasses, face shield, heat resistant gloves, and a protective apron when handling or working near heated materials.
7. Face shields must be worn when opening equipment that is under pressure. This includes the kettles and all lines. The face shield provided on the PAPR helmet will meet this requirement.
8. Gloves must be tucked under the protective arm sleeves so molten material will not get under the gloves and potentially burn the wrists or hands.
9. Avoid inhaling smoke/vapor from hot thermoplastic. Employees must wear a respirator while loading the kettle that protects them from particulates and vapors. Contact your safety representative for further information regarding respiratory protection.
10. Keep the unit clean and free of oil and spilled thermoplastic.
11. Fire extinguishers should be readily available, and all employees must be trained.
12. Employees must be trained in first aid procedures and how to treat a burn. A cooler of ice water

must be kept on site during thermoplastic melting and application procedures in case of mild burns. Use ice water to cool affected skin areas immediately. For severe burns call 911 or transport immediately to the closest hospital emergency room.

13. When adding thermoplastic material to the kettle, stop agitation and open the lid slowly while standing to the side. The Kettles have been provided with a 3-stage lid opening device. This device will help shield the operator from direct contact with the molten thermoplastic should the material flash during loading operation.
14. Add small amounts of thermoplastic material at regular intervals to the kettle. Don't drop a whole bag or block of material into hot material already in the kettle, because this will cause hot material to splash upward.
15. Never open kettle lid while truck is in motion.
16. Do not leave the kettle or applicator unattended when lit.
17. Do not leave burners on when the kettle is empty.
18. Keep hands clear of moving parts and the open kettle door.
19. Do not place any part of the body under the paint carriage at the back of the truck when cleaning or working on the spray nozzles, working on glass bead applicator, when changing the carriage tires and/or any other maintenance activity unless steps have been taken to support the carriage from falling.
20. Depressurize and vent all pressure tanks and lines before opening.
21. Do not overheat the material. The maximum temperature is 450° F. When material is heated above the recommended temperature, fumes may evolve which can ignite causing a fire.
22. Extreme caution must be used when running hot plastic into drip pans. The pans must not be moved when plastic is molten liquid. The pans can be moved after the plastic has cooled enough that it will not move when pan is tilted. Always place pans in holders provided at back of truck.
23. Do not increase burner fuel pressure above factory setting or change the size and angle of the fuel nozzle.
24. The agitator on the kettle must turn when the material is fluid enough to allow its operation. Do not keep the material at melting temperature without the agitator running. The agitator must continue to run while the material is cooled to 250° F to prevent the glass settling to bottom of the melter chamber.
25. Shut off all burners when the machine is not being used or attended.

## **Related SOP's**

General SOPs .....Chapter 10