



AmTrust North America
An AmTrust Financial Company

Safety Zone

Flammable Finishing Fire Safety

All flammable finishing operations should meet [National Fire Protection Association \(NFPA\) 33](#) requirements. NFPA is the standard for spray application using flammable or combustible materials. It is designed specifically to address fire safety for the spray application of both liquid and powder coatings.

Leading Causes of Fires in Flammable Finishing Operations

Leading causes of fires in a flammable finishing operation include but are not limited to:

- Inadequate ventilation
- Poor housekeeping
- Smoking
- Using spark-producing equipment such as hot work (cutting/welding/grinding) near the spray area
- Using ferrous metal to clean paint residue
- Friction, in most cases caused by overheated bearings on the exhaust fan, or by rubbing of exhaust fan blades against overspray deposits on the wall of the duct
- Arcing electrical equipment
- Spontaneous combustion
- Discharge of static electricity



Preventing Fires in Flammable Finishing Operations with Loss Control Best Practices

Loss control (safety control) activities should include:

- Electrical equipment and wiring should meet the National Electrical Code for the operation.
- Ventilation should be interlocked so that the spray guns will not operate unless the ventilation fans are running.
- Paint booths should be cleaned on a regular basis and a non-ferrous paint scraper should be used.
- A masking material should be used on the interior sides of the booth and floor, which will aid in cleaning excess paint residue.
- If hot work needs to be conducted in the spray operation, the area should be cleaned of all flammable products and residue prior to work starting. A hot work permit should be issued by management.

- Paint and solvent soaked rags should be placed in a UL listed metal can with self-closing lid. The can should be emptied to an outside dumpster each evening. Dumpsters should be located at least 30 feet from any structure.
- Paint drums, paint pots and spray guns should be properly grounded and bonded.
- Flammables at the spray area should be limited to one day or one shift's supply.
- Ventilation filters should be changed or cleaned on a regular basis.
- Automatic Extinguishing Systems should be tested and serviced at least annually.
- Implement a strict no smoking policy.

Resource material: <https://www.pfonline.com/articles/reducing-the-chance-of-spray-booth-fires>

For additional information and resources on this topic and other safety and risk management subjects, visit the AmTrust Loss Control website: <https://www.amtrustgroup.com/small-business-insurance/claims/prevention>

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