

Seattle Fire Department

Permit Conditions

4509

POWDER COATING, DIPPING, AND ELECTROSTATIC OPERATIONS

This permit shall be kept on the premises designated herein at all times and shall be readily available for inspection by the fire code official. [SFC 105.3.5]

POWDER COATING-Operations using finely ground particles of protective finishing material applied in dry powder form by a fluidized bed (dipping), an electrostatic fluidized bed, powder spray guns or electrostatic powder spray guns shall comply with the *Seattle Fire Code*.

1. Powder coating operations shall be conducted in enclosed powder coating rooms, enclosed powder coating facilities that are ventilated or ventilated spray booths. [SFC 2406.2]
2. Areas used for powder coating shall be protected by an *approved* automatic fire-extinguishing system complying with Chapter 9 of the *Seattle Fire Code*. [SFC 2406.4]
3. Automated powder application equipment shall be protected by the installation of an approved, supervised flame detection apparatus that shall reach to the presence of flame within 0.5 second and shall accomplish all of the following:
 - a. Shutting down of energy supplies (electrical and compressed air) to conveyor, ventilation, application, transfer and powder collection equipment.
 - b. Closing of segregation dampers in associated ductwork to interrupt airflow from application equipment to powder collectors.
 - c. Activation of an alarm that is audible throughout the powder coating room or booth. [SFC 2406.4.1]
4. When parts are heated prior to coating, the temperature of the parts shall not exceed the ignition temperature of the powder to be used. [SFC 2406.6.3]
5. Precautions shall be taken to minimize the possibility of ignition by static electrical sparks through static bonding and grounding, where possible, of powder transport, application and recovery equipment. [SFC 2406.6.4]
6. Exhaust ventilation shall be sufficient to maintain the atmosphere below one-half the minimum *explosive* concentration for the material being applied. Non-deposited, air-suspended powders shall be removed through exhaust ducts to the powder recovery system. [SFC 2406.7]
7. Powder coating areas shall be kept free from the accumulation of powder coating dusts, including horizontal surfaces such as ledges, beams, pipes, hoods, booths and floors. [SFC 2406.5]
8. Surfaces shall be cleaned in such a manner so as to avoid scattering dusts to other places or creating dust clouds. Vacuum sweeping equipment shall be of a type *approved* for use in hazardous location. [SFC 2406.5.1]
9. Iron or spark-producing metals shall be prevented from being introduced into the powders being applied by magnetic separators, filter-type separators, or by other *approved* means. [SFC 2406.6.2]
10. "No Smoking" signs complying with Section 310 shall be conspicuously posted at all powder coating areas and powder storage rooms. [SFC 2403.2.6]
11. Provide a portable fire extinguisher with a minimum rating of 40BC located every 30 feet. [SFC 2406.4.2 and Table 906.3(2)]
12. Hand electrostatic equipment shall be interlocked with the ventilation system for the spraying area so that the equipment cannot be operated unless the ventilation system is in operation. [SFC 2407.9]