



City of Portage Building Department

6070 Central Avenue, Portage, Indiana 46368
Telephone (219) 762-4204 Fax (219) 764-5749

Warehouse Policy Supplement

IFC Section 3202

High-Piled Combustible Storage

Storage of combustible materials in closely packed piles or combustible materials on pallets, in racks or on shelves where the top of storage is greater than 12 feet (3658 mm) in height. When required by the fire code official, high-piled combustible storage also includes certain high-hazard commodities, such as rubber tires, Group A plastics, flammable liquids, idle pallets and similar commodities, where the top of storage is greater than 6 feet (1829 mm) in height.

High-Piled Storage Area

An area within a building which is designated, intended, proposed or actually used for high-piled combustible storage.

IFC Section 3203.

Classification of commodities

Commodities shall be classified as Class I, II, III, IV or high hazard in accordance with this section. Materials listed within each commodity classification are assumed to be unmodified for improved combustibility characteristics. Use of flame-retarding modifiers or the physical form of the material could change the classification. See Section 3203.7 for classification of Group A, B and C plastics.

3203.1 Class I commodities.

Class I commodities are essentially noncombustible products on wooden or nonexpanded polyethylene solid deck pallets, in ordinary corrugated cartons with or without single-thickness dividers, or in ordinary paper wrappings with or without pallets. Class I commodities are allowed to contain a limited amount of Group A plastics in accordance with Section 3203.7.4. Examples of Class I commodities include, but are not limited to, the following:

- Alcoholic beverages not exceeding 20-percent alcohol
- Appliances noncombustible, electrical
- Cement in bags
- Ceramics
- Dairy products in nonwax-coated containers (excluding bottles)
- Dry insecticides
- Foods in noncombustible containers
- Fresh fruits and vegetables in nonplastic trays or containers
- Frozen foods
- Glass
- Glycol in metal cans
- Gypsum board
- Inert materials, bagged
- Insulation, noncombustible
- Noncombustible liquids in plastic containers having less than a 5-gallon (19 L) capacity
- Noncombustible metal products

3203.3 Class II commodities.

Class II commodities are Class I products in slatted wooden crates, solid wooden boxes, multiple-thickness paperboard cartons or equivalent combustible packaging material with or without pallets. Class II commodities are allowed to contain a limited amount of Group A plastics in accordance with Section 3203.7.4. Examples of Class II commodities include, but are not limited to, the following:

- Alcoholic beverages not exceeding 20-percent alcohol, in combustible containers
- Foods in combustible containers
- Incandescent or fluorescent light bulbs in cartons
- Thinly coated fine wire on reels or in cartons

3203.4 Class III commodities.

Class III commodities are commodities of wood, paper, natural fiber cloth, or Group C plastics or products thereof, with or without pallets. Products are allowed to contain limited amounts of Group A or B plastics, such as metal bicycles with plastic handles, pedals, seats and tires. Group A plastics shall be limited in accordance with Section 3203.7.4. Examples of Class III commodities include, but are not limited to, the following:

- Aerosol, Level 1 (see Chapter 28)
- Combustible fiberboard
- Cork, baled
- Feed, bagged
- Fertilizers, bagged
- Food in plastic containers
- Furniture: wood, natural fiber, upholstered, nonplastic, wood or metal with plastic-padded and covered arm rests
- Glycol in combustible containers not exceeding 25 percent
- Lubricating or hydraulic fluid in metal cans
- Lumber
- Mattresses, excluding foam rubber and foam plastics
- Noncombustible liquids in plastic containers having a capacity of more than 5 gallons (19L)
- Paints, oil base, in metal cans
- Paper, waste, baled
- Paper and pulp, horizontal storage, or vertical storage that is banded or protected with approved wrap
- Paper in cardboard boxes
- Pillows, excluding foam rubber and foam plastics
- Plastic-coated paper food containers
- Plywood
- Rags, baled
- Rugs, without foam backing
- Sugar, bagged
- Wood, baled
- Wood doors, frames and cabinets
- Yarns of natural fiber and viscose

3203.5 Class IV commodities.

Class IV commodities are Class I, II or III products containing Group A plastics in ordinary corrugated cartons and Class I, II and III products, with Group A plastic packaging, with or without pallets. Group B plastics and free-flowing Group A plastics are also included in this class. The total amount of nonfree-flowing Group A plastics shall be in accordance with Section 3203.7.4. Examples of Class IV commodities include, but are not limited to, the following:

- Aerosol, Level 2 (see Chapter 51)
- Alcoholic beverages, exceeding 20-percent but less than 80-percent alcohol, in cans or bottles in cartons.
- Clothing, synthetic or nonviscose
- Combustible metal products (solid)
- Furniture, plastic upholstered
- Furniture, wood or metal with plastic covering and padding
- Glycol in combustible containers (greater than 25 percent and less than 50 percent)
- Linoleum products
- Paints, oil base in combustible containers
- Pharmaceutical, alcoholic elixirs, tonics, etc.
- Rugs, foam back
- Shingles, asphalt
- Thread or yarn, synthetic or nonviscose

3203.6 High-hazard commodities.

High-hazard commodities are high-hazard products presenting special fire hazards beyond those of Class I, II, III or IV. Group A plastics not otherwise classified are included in this class. Examples of high-hazard commodities include, but are not limited to, the following:

- Aerosol, Level 3 (see Chapter 51)
- Alcoholic beverages, exceeding 80-percent alcohol, in bottles or cartons
- Commodities of any class in plastic containers in carousel storage
- Flammable solids (except solid combustible metals)
- Glycol in combustible containers (50 percent or greater)
- Lacquers, which dry by solvent evaporation, in metal cans or cartons
- Lubricating or hydraulic fluid in plastic containers
- Mattresses, foam rubber or foam plastics
- Pallets and flats which are idle combustible
- Paper, asphalt, rolled, horizontal storage
- Paper, asphalt, rolled, vertical storage
- Paper and pulp, rolled, in vertical storage which is unbanded or not protected with an approved wrap
- Pillows, foam rubber and foam plastics
- Pyroxylin
- Rubber tires
- Vegetable oil and butter in plastic containers

3203.7 Classification of plastics.

Plastics shall be designated as Group A, B or C in accordance with sections 3203.7.1 through 3203.7.4.

3203.7.1 Group A plastics.

Group A plastics are plastic materials having a heat of combustion that is much higher than that of ordinary combustibles, and a burning rate higher than that of Group B plastics. Examples of Group A plastics include, but are not limited to, the following:

- ABS (acrylonitrile-butadiene-styrene copolymer)
- Acetal (polyformaldehyde)
- Acrylic (polymethyl methacrylate)
- Butyl rubber
- EPDM (ethylene propylene rubber)
- FRP (fiberglass-reinforced polyester)
- Natural rubber (expanded)
- Nitrile rubber (acrylonitrile butadiene rubber)
- PET or PETE (polyethylene terephthalate)
- Polybutadiene
- Polycarbonate
- Polyester elastomer
- Polyethylene
- Polypropylene
- Polystyrene (expanded and unexpanded)
- Polyurethane (expanded and unexpanded)
- PVC (polyvinyl chloride greater than 15 percent plasticized, e.g., coated fabric unsupported film)
- SAN (styrene acrylonitrile)
- SBR (styrene butadiene rubber)

3203.7.2 Group B plastics.

Group B plastics are plastic materials having a heat of combustion and a burning rate higher than that of ordinary combustibles, but not as high as those of Group A plastics. Examples of Group B plastics include, but are not limited to, the following:

- Cellulosics (cellulose acetate, cellulose acetate butyrate, ethyl cellulose)
- Chloroprene rubber
- Fluoroplastics (ECTFE, ethylene-chlorotrifluoroethylene copolymer; ETFE, ethylene-tetrafluoroethylene copolymer; FEP, fluorinated ethylene-propylene copolymer)
- Natural rubber (nonexpanded)
- Nylon (Nylon 6, Nylon 6/6)
- PVC (polyvinyl chloride greater than 5-percent, but not exceeding 15-percent plasticized)
- Silicone rubber

3203.7.3 Group C plastics.

Group C plastics are plastic materials having a heat of combustion and a burning rate similar to those of ordinary combustibles. Examples of Group C plastics include, but are not limited to, the following:

- Fluoroplastics (PCTFE, polychlorotrifluoroethylene; PTFE, polytetrafluoroethylene)
- Melamine (melamine formaldehyde)
- Phenol
- PVC (polyvinyl chloride, rigid or plasticized less than 5 percent, e.g., pipe, pipe fittings)
- PVDC (polyvinylidene chloride)
- PVDF (polyvinylidene fluoride)
- PVF (polyvinyl fluoride)
- Urea (urea formaldehyde)