



Badger Fire Protection  
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A UTC Fire & Security Company

# TECHNICAL BULLETIN

## #122-1009

**Date: October 2009**

### **Subject: Class B Special Hazard Extinguisher Selection**

While general NFPA-10 Class B occupancy coverage recommendations commonly reference numerical fire extinguisher ratings, it is important to understand that these fire ratings only address standing spills and limited sizes of open fuel-in-depth types of fire situations having maximum surface areas up to 20 square feet. Most real world Class B fire situations present burning fuels which are either moving, dripping, spraying or situated around various forms of obstructions that can hinder the application of extinguishing agents.

Since the late 1970s the equipment manufacturers and petrochemical industry have understood that larger fire extinguisher models capable of delivering higher agent application rates onto those real world fire situations, were much more successful than models simply having higher numerical fire ratings.

The NFPA-10 portable fire extinguisher standard has always recognized these unique types of Class B fire hazard situations and the need for having special extinguishers designed to address them. In the past however, it only referred users to the fire equipment manufacturers for selection assistance and guidance. Today the standard provides specific extinguisher model recommendations having minimum dry chemical agent capacities of 10 pounds or greater and agent discharge rates-of-flow of 1 PPS (pound per second) or more to properly address these special Class B hazards.

The fire extinguisher selection recommendations identified within the 2007 edition of NFPA-10 addressing special Class B fire hazard situations are covered in section 5.5. The specific paragraph references for addressing pressurized flammable liquid and gas fire hazard situations is paragraph 5.5.1.1.2, three-dimensional fire situations paragraph 5.5.2 and obstacle fire situations paragraph 5.5.4.

Special Class B hazard situations potentially exist around any real world applications that handle, transport, process or store flammable liquids and gases. Professional emergency response equipment as well as vehicles transporting various Class B fuels are also common applications.

The second page of this bulletin contains a list of Badger dry chemical fire extinguisher models that can be used to meet and address these special fire hazard situations. Should you have any questions, please feel free to contact your local Badger representative for assistance or call customer service at (434) 964-3200 or at [www.badgerfire.com](http://www.badgerfire.com)

The following Badger dry chemical fire extinguisher models meet or exceed the new NFPA-10 Class B special hazard fire protection recommendations and requirements addressing pressure fires, three dimensional fires and obstacle fires by having minimum 1 pps agent discharge flow rates.

Reference: 2007 NFPA-10 Paragraphs 5.5.1.1.2. for Pressure fire hazards, 5.5.2 for Three-dimensional hazards & 5.5.4 (3) for Obstacle hazards.

### Stored Pressure Hand portables

Model	P/N	Dry Chemical	Capacity	Rating	Agent Flow Rate	Duration	Range
B10M-1-HF	21006158	ABC	10 pounds	1A-20B:C	1.13 pps (.51 kg/sec)	11 sec	10 to 25 feet
B10P-1-HF	21006159	Purple-K	10 pounds	20B:C	1.18 pps (.54 kg/sec)	11 sec	10 to 25 feet
B20M-HF	21006160	ABC	20 pounds	4A-60B:C	1.18 pps (.54 kg/sec)	20 sec	10 to 30 feet
B20P-HF	21006161	Purple-K	20 pounds	60B:C	1.22 pps (.55 kg/sec)	20 sec	10 to 30 feet

### Pressure Transfer (Cartridge Operated) Hand portables

Model	P/N	Dry Chemical	Capacity	Rating	Agent Flow Rate	Duration	Range
B20RG	466528	Regular	23 pounds	60B:C	1.12 pps (.51 kg/sec)	20-26 sec	15 to 30 feet
B20PK-HF	466565	Purple-K	22 pounds	20B:C	2.04 pps (.93 kg/sec)	12 sec	15 to 30 feet
B20A	466527	ABC	21 pounds	20A-60B:C	1.02 pps (.46 kg/sec)	20-24 sec	15 to 30 feet
B20A-HF	466564	ABC	21 pounds	2A-40B:C	1.61 pps (.73 kg/sec)	15 sec	15 to 30 feet
B30RG	466539	Regular	29 pounds	60B:C	1.03 pps (.47 kg/sec)	26-30 sec	15 to 35 feet
B30PK-HF	466567	Purple-K	28.50 pounds	40B:C	2.18 pps (.99 kg/sec)	14 sec	15 to 35 feet
B30A-HF	466566	ABC	25 pounds	3A-40B:C	1.88 pps (.85 kg/sec)	15 sec	15 to 30 feet

### Wheeled Extinguisher Models

Model	P/N	Dry Chemical	Capacity	Rating	Agent Flow Rate	Duration	Range
50PB	20180	Purple-K	50 pounds	160B:C	1.30 pps (.59 kg/sec)	36 sec	25 to 35 feet
50MB	20127	ABC	50 pounds	30A-160B:C	1.20 pps (.54 kg/sec)	36 sec	25 to 35 feet
150RB	20677	Regular	150 pounds	240B:C	2.70 pps (1.22 kg/sec)	55 sec	30 to 40 feet
150PB	20684	Purple-K	125 pounds	240B:C	2.90 pps (1.32 kg/sec)	48 sec	30 to 40 feet
150MB	20653	ABC	125 pounds	40A-240B:C	2.60 pps (1.18 kg/sec)	45 sec	30 to 40 feet
B150R-1	19906	Regular	150 pounds	240B:C	3.00 pps (1.36 kg/sec)	43 sec	25 to 35 feet
B150K-1	19915	Purple-K	125 pounds	240B:C	2.50 pps (1.13 kg/sec)	43 sec	25 to 35 feet
B150A-1	19900	ABC	145 pounds	40A-240B:C	3.00 pps (1.36 kg/sec)	43 sec	25 to 35 feet
WB493	24129	Purple-K	300 pounds	320B:C	4.10 pps (1.86 kg/sec)	67 sec	30 to 40 feet
WB491	24126	ABC	300 pounds	40A-320B:C	4.90 pps (2.2 kg/sec)	60 sec	30 to 40 feet

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