Coverage Levels

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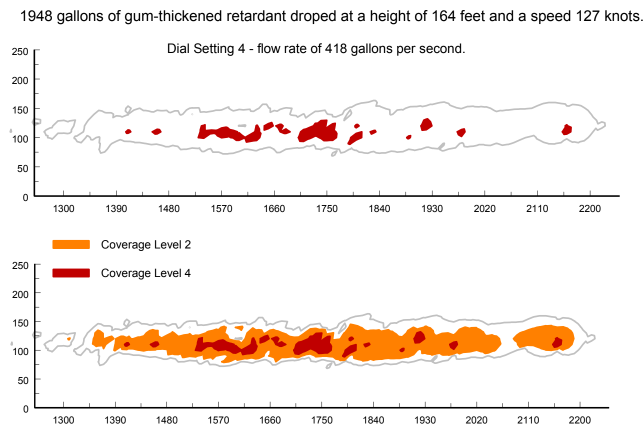
The graph below displays the ground pattern from a constant flow tank at a rate of 418 gallons per second which falls into the coverage level 4 category according to the recommended coverage level chart below. The plot shows coverage level 4 in red expressed in gallons per hundred square feet (gpc) nested inside coverage level 2. The 4 is not continuous and does not occur outside the main pattern. The length of the 4 gpc line (253 feet) is typically expressed as the sum of the individual islands of 4 gpc. Differences in tank and gating systems and drop conditions may produce more or fewer islands of a specific coverage level.



When this pattern is applied ahead of the fire, the flame front encounters the lower coverage levels of 1, 2, and 3 first and the fire intensity begins to decrease. By the time the flame front hits the coverage level 4, the retarding process is in progress and the 4 gpc may be effective if the islands are close enough to each other or the fire has sufficiently slowed.

Recommended Retardant Coverage Level

Fuel Model NFDRS	Fuel Model FB	Coverage Level (gal/100 ft²)	Flow Rate Range (gal/sec)	Fuel Description
A, L, S	1	1	100-150	Annual & Perennial Western Grasses; Tundra
C H, R E, P, U	2 8 9	2	151-200	Conifer with Grass Shortneedle Closed Conifer; Spring Hardwood Longneedle Conifer; Fall Hardwood
T N F K	2 3 5 11	3	251-400	Sagebrush with Grass Sawgrass Intermediate Brush (green) Light Slash
G	10	4	401-600	Shortneedle Conifer (heavy dead litter)
O F, Q	4 6	6	601-800	Southern Rough Intermediate Brush (cured); Alaska Black Spruce
B, O J I	4 12 13	Greater than 6	Greater than 800	California Mixed Chaparral; High Pocosin Medium Slash Heavy Slash
Adjust Coverage Level based on fire behavior, i.e., for smoldering fires decrease by 1.				

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