

GENERAL INFORMATION



Spray Applied Fiberglass Ceiling Finish (AF90) Versus Spray Applied Cellulose Ceiling Finish

Spray Applied Cellulose (Sold under various brand names)

- a) Composition: Shredded paper products - may be new or recycled newsprint, cardboard or paper stock treated with water-based, **resoluble** fire retardant to slow down flame spread and smoke development. Products are mixed with water-based adhesive at time of application;
- b) Noise reduction (NRC) - ranges from 0.60 @ 0.5 in (12.5 mm) to 0.90 @ 1.00 in (25 mm) depending on manufacturer;
- c) Flame spread rating: varies from manufacturer to manufacturer, but all meet requirements of:
Flame spread = ≤ 25 ;
Smoke development = ≤ 450 ;
NOTE: Installation may require periodic overspray with fire retardant to maintain these ratings as retardant may leach out over time;
- d) Combustibility - **combustible**.
NOTE: Because these are 100% organic products they can never be rated as "non-combustible";
- e) Air erosion - meets requirements;
- f) Fungal resistance - meet requirements at time of application.
NOTE: Fire retardants often double as fungicides, and as they are water resoluble they may leach out over time and compromise the fungal resistance rating;
- g) Bond Strength - sufficient to hold themselves in place on underside of horizontal surface.

Spray Applied AF90 (Glass fibre-based)

- a) Composition - Fine, white, purpose-manufactured glass fibre (min. 35% recycled content) mixed with water-based adhesive at time of application;
- b) Noise reduction (NRC);
 - 0.90 @ 1.0" (25 mm);
 - 0.60 @ 0.5" (12.5 mm)
- c) Flame spread and smoke development rating:
Flame = ≤ 25
Smoke = ≤ 450
NOTE: Installation does not require periodic overspray with fire retardant to maintain these ratings, as glass is non-combustible;
- d) Combustibility - product is rated as **non-combustible**;
- e) Air erosion - meets requirement;
- f) Fungal resistance - meets requirement (MIL-STD 810E, Method 508.4). **Will not support *Stachybotrys chartarum* mould, which requires cellulose-based material to support growth.**
NOTE: If further information concerning mould growth in cellulose is desired, please see our information sheet titled "Mould in Buildings: A Health Issue.";
- g) Bond strength: >1.7 kPa, which is deemed by the relevant authorities to be sufficient to hold **AF90** securely in place on the underside of a horizontal surface. **NOTE: Bond strength of glass fibre is lower than cellulose. This is because paper absorbs moisture very readily and the adhesive permeates the paper (cellulose) and forms a cohesive whole. In the case of fibreglass, the adhesive cannot permeate the glass, but encapsulates it with a very thin film to form the matrix. Thus, the adhesive, which is organic, forms only a minor part of the installation and ensures that AF90 is rated as noncombustible.**

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