

## 2009 IRC Section R316.5.3 Attics - Thermal Barrier

**R316.5 Specific requirements.** The following requirements shall apply to these uses of foam plastic unless specifically approved in accordance with Section R316.6 or by other sections of the code or the requirements of Sections R316.2 through R316.4 have been met.

**R316.5.3 Attics.** The thermal barrier specified in Section R316.4 is not required where all of the following apply:

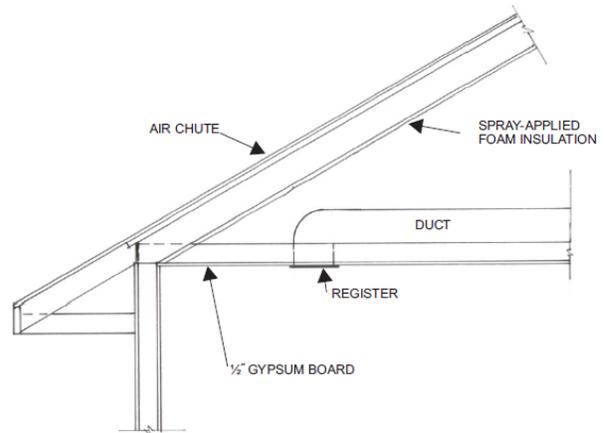
1. Attic access is required by Section R807.1.
2. The space is entered only for purposes of repairs or maintenance.
3. The foam plastic insulation is protected against ignition using one of the following ignition barrier materials:
  - 3.1. 1/2-inch-thick (38 mm) mineral fiber insulation;
  - 3.2. 1/4-inch-thick (6.4 mm) wood structural panels;
  - 3.3. 3/8-inch (9.5 mm) particleboard;
  - 3.4. 1/4-inch (6.4 mm) hardboard;
  - 3.5. 3/8-inch (9.5 mm) gypsum board; or
  - 3.6. Corrosion-resistant steel having a base metal thickness of 0.016 inch (0.406 mm).

The above ignition barrier is not required where the foam plastic insulation has been tested in accordance with Section R316.6.

**Q:** A contractor in our area has requested our approval to use spray-applied foam insulation on the bottom side of the roof rafters in the attic instead of applying the insulation to the attic floor, to meet the roof/ceiling insulation requirements of the IRC. This attic space contains flexible ductwork that supplies habitable rooms below the attic floor (or ceiling of the habitable rooms below). Does this installation meet the requirements noted in Section R316.4 for a thermal barrier if 1/2-inch-thick drywall is attached to the bottom of the ceiling below instead of it being attached to the bottom of the insulated roof rafters? The foam insulation in the rafters will be exposed to the open attic area.

**A:** Section R316.5.3 contains requirements for separation of foam plastic insulation in attic areas. A thermal barrier is not required in this attic area to separate the foam plastic insulation and the interior of the attic as long as one of the ignition barrier materials listed in the section is used over the exposed foam plastic insulation and access into the attic is only for repair and maintenance. Keep in mind that a thermal barrier and ignition barrier are not the same. The ignition barrier would need to encapsulate the foam insulation between the roof rafters, as the purpose of the ignition barrier is to isolate the foam plastic insulation from the attic area. See Figure 3-245.

[3-245]



**SPRAY-APPLIED FOAM INSULATION IN  
RAFTERS  
FIGURE 3-245**