Advisory Bulletin

**Recommendations for Synthetic Felt**

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# **Synthetic Felt:**

Many synthetic felt underlayments have polypropylene liners with perm ratings of 0.1 or less which is a vapor barrier. Any underlayment with a perm rating of less than 0.50 can lead to condensation issues if the roof system is not properly vented to meet the building code requirements and with balanced through roof ventilation. Asphalt impregnated felt is a class 3 vapor retarder with perm ratings from 3.0 to 5.0. As such it allows moisture to pass through the felt underlayment acting as a vapor diffuser. That helps to prevent condensation. When you remove that asphalt impregnated felt and install synthetic felt that is a vapor barrier you are changing the dynamics of that roof system and can be liable for resulting damages. Rooﬁng manufacturers are aware of this issue and require all roofs to be vented to meet the building code requirements in IRC Section 806 (IBC section 1202.2). There are several synthetic roof underlayments on the market that act as vapor diffuser with high perm ratings and will help to mitigate this issue.

**Fire Classification.** It is important to insure that the underlayment being used meets the fire classification for the roof system in the jurisdiction that the work in being performed in.