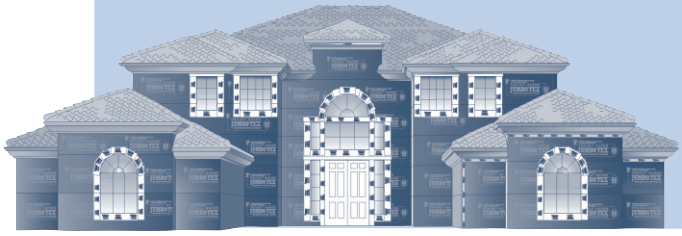


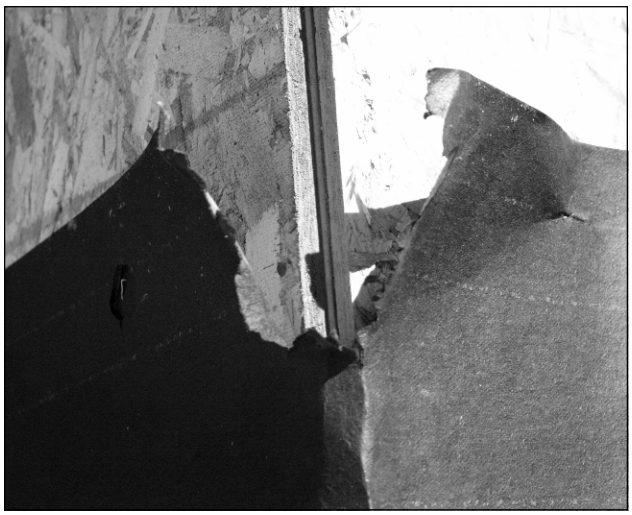
Forti-Facts

A Technical Bulletin From The Fortifiber Building Systems Group®

August 2007

Roofing Felt Fails to Make the Grade

Many people in the building industry talk about "15 pound building paper" as a weather-resistive barrier. But the fact is, there's no such thing. This frequently used misnomer is actually a compound of two different names, for two different products (#15 roofing felt and building paper), each of which are manufactured for distinctly different purposes. And while even seasoned professionals refer to these products interchangeably, they are not interchangeable.



Stiffer and less pliable than ASK, roofing felt is more susceptible to tears when worked around outside or inside corners.

Roofing felt is a product that's designed to protect roofs, not wall systems. It is made using rag fiber content or recycled cellulose. Asphalt-saturated kraft building paper is a "weather-resistive barrier," specifically designed for use in exterior wall assemblies.

ASK – A Product Designed for Walls

Roofing felt and ASK (Asphalt Saturated Kraft) are considered different products by the International Code Council. As such, the testing protocols used to evaluate their physical properties are completely different – designed to demonstrate very different performance characteristics.

Physical properties for ASK products are clearly defined by AC 38 (International Code Council *Acceptance Criteria for Water-Resistive Barriers #38*). Supported by evaluation reports, ASK products meet AC 38 and Federal Specification UU-B-790a requirements for Grade D building papers; 10 minutes of water resistance (ASTM D-779) and a minimum vapor permeance of 5 perms. There are more advanced versions of ASK that far exceed Grade D requirements, offering 20, 30, and 60 minutes of water resistance.

Roofing felt is not subject to AC 38 requirements, and roofing felt manufacturers do not provide physical property information on compliance with Grade D requirements. Most roofing felts are intended (by the manufacturers) to act as temporary waterproofing, prior to installation of roofing tile, shingles, etc. on sloped roofs, and to act as an extra layer of protection in the

(Continued on reverse)

COMPARISON	ASK	FELT
Complies to AC 38	Yes	No
Pliable around inside/outside corners	Yes, maintains barrier integrity	No, cracks & breaks
Available in 2-Ply	Yes	No
Roll weight (ease of installation)	3.6 - 6.0 lbs./100 sq. ft.	7.6 - 8.8 lbs./100 sq. ft.
Complete compatible system available	Yes	No
Meets code requirements for vapor permeability	Yes	Unreported
Cost	Stable & affordable	Volatile
Warranty for walls	10-Years	None
Evaluation report for walls available	Yes, ESR-1027	No

Roofing Felt Fails to Make the Grade

(Continued from front)

final roof assembly.

The International Building Code section 2510.6 requires two layers of Grade D membrane behind stucco or stone veneer over wood based sheathing. ASK products meet this standard. But because roofing felt manufacturers do not provide Grade D test results, their products should not be employed to meet the code requirements.

ASK - Easier Installation, More Cost Effective

Asphalt saturated kraft building paper (hereinafter, ASK) is designed specifically for walls, not roofs. As such, ASK is pliable and less likely to crack or tear when installed on inside and outside corners. The product is lighter and easier to apply than roofing felt. The size and weight of ASK also allow more square feet per pallet, which means less storage space on trucks and in warehouses. Rolls of ASK are available in 1 ply and 2 ply, which saves the labor cost of wrapping a building twice when two layers are required by code.

While ASK is not always less costly per roll than roofing felt, ASK prices tend to be more stable and the product is generally available. Considerable fluctuation in the roofing market makes roofing felt prices more volatile, since availability tightens as roofing demand increases.

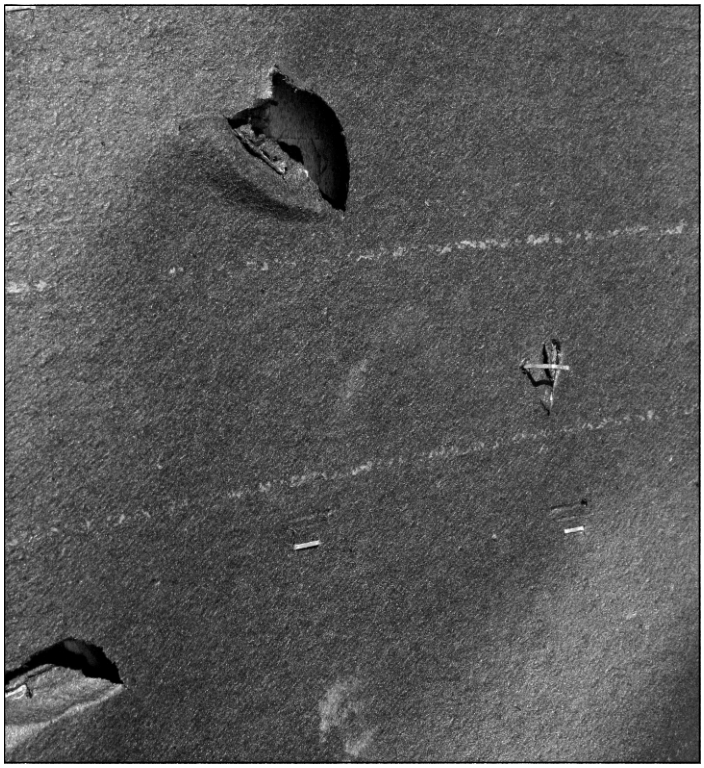
Big Differences in Product Design, Construction and Application

Asphalt saturated organic felt is roofing felt, which is manufactured, tested and rated for use as an underlayment on roofs. It is made from multiple layers of loosely laid (matted), unbleached cellulose fibers, with a high percentage of low strength, recycled fibers. The resulting felt has a less than uniform structure, large pore size and a bulky matrix which when saturated results in a higher asphalt percentage and a lower perm level. The lower perm level translates to a product that does not meet the breathability (moisture vapor transmission) requirements of a weather-resistive barrier.

Asphalt saturated building paper is asphalt saturated kraft paper, which is manufactured, tested and rated for use as a weather resistive barrier in wall assemblies. It is made from a single layer of unbleached, mostly virgin, soft wood pulp, which results in a kraft linerboard specifically designed to optimize the saturating process. The resulting building paper has more strength, a uniform fiber structure, smaller pore size that gives it the higher perm levels appropriate for wall systems. The base material is also smoother, more consistent, and denser resulting in more constant asphalt absorption and a building paper that provides a more constant and stable perm rating that consistently exceeds the breathability requirements of a weather-resistive barrier.

A Guarantee

Fortifiber offers a comprehensive line of 1 and 2 ply asphalt saturated kraft building papers and compatible products. They are manufactured to meet exacting standards, engineered as part of our complete moisture control systems, and backed by our 10 Year FortiShield Warranty. We are not aware of any roofing manufacturers offering the same warranty on roofing felt.



Staple pull-throughs and tears in roofing felt will undermine the material's water resistance.