



Water-Resistive Barriers Exposed to the Elements

The industry recommends keeping the exposure of the water-resistive barrier to the very minimum prior to covering with the exterior cladding. Prolonged exposure to sunlight, wind, moisture, job site dust and dirt, and other detrimental elements can promote degradation of the water resistant barrier. Prolonged degradation may lead to failures of the exterior envelope and moisture migration.

ASPHALT SATURATED KRAFT PAPER:

Allowable time exposures for water resistant barriers vary due to atmospheric conditions, exposure to sunlight and abuse resistance. Generally, grade “D” building paper can be exposed to the elements for thirty (30) days. Exposure to extreme elements can shorten this period and protected areas can have longer exposure times. Hot, dry and extreme exposure to the sunlight can leach the asphalt out of the grade “D” paper. This is visible as the paper fades from a rich, dark black, to a light brown or grey.

The asphalt saturated kraft paper will wrinkle when wet. This wrinkle action happens when wet plaster is applied and swells the restrained paper to form shallow channels on the back of the plaster. When the plaster sets, the channels are set, the asphalt paper dries and pulls back slightly from the plaster to create a shallow and effective drainage (weep) system.

SYNTHETIC HOUSEWRAPS:

Most housewraps are able to withstand longer exposure to UV (ultraviolet) light as compared to asphalt saturated kraft papers. When using synthetic wraps, consult manufacturer for allowable time exposure. Housewraps should have the same bond breaking ability with cement to perform similar to asphalt saturated kraft papers or a single layer of grade “D” paper can be applied over the housewrap prior to the application of the lath.

Portland cement plaster (stucco) is the outermost part of a moisture management, exterior envelope assembly. Even during periods of sustained precipitation, rainwater may saturate into the plaster, but rarely reaches the water resistant barrier. Incidental moisture typically finds its way behind the cement membrane through large cracks, penetrations and/or gaps in trim accessories. The water resistant paper is a secondary barrier and will keep this incidental moisture out of the wall cavity. Applied properly and integrated in a “shingle-fashion” with flashings, the water resistant barrier directs moisture back out of the envelope via the installed weep screeds.

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