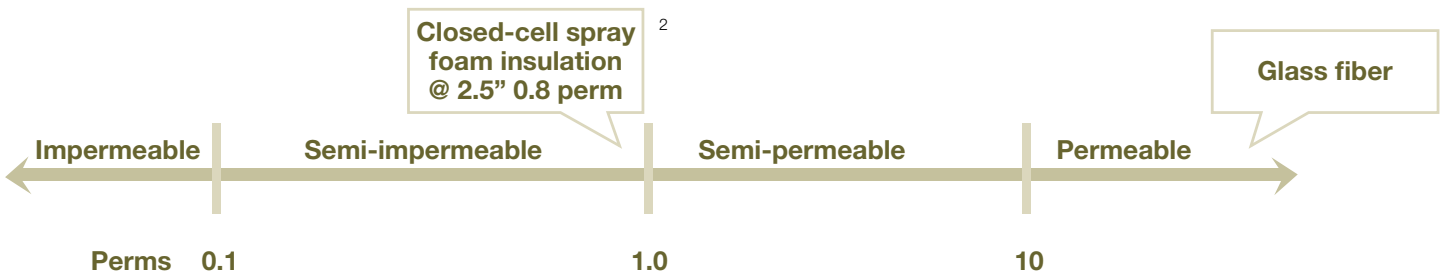


Moisture Control

How do you control	<p>1. Rain & ground water</p> <ul style="list-style-type: none"> - Properly designed and constructed drainage planes - Use of repellent materials (building paper, house wrap, foam insulation) in the construction 	<p>2. Air infiltration</p> <ul style="list-style-type: none"> - Seamless, continuous air barrier 	<p>3. Vapor diffusion</p> <ul style="list-style-type: none"> - Vapor retardant materials - Optimal placement can change (from outside to inside or vice versa) depending on climate and weather differences
Closed-cell spray foam advantage	<p>“SPF [spray polyurethane foam] can be applied within a building envelope to control heat, air and moisture transport by providing continuous and effective air barriers, rain screens, weather barriers, and thermal insulation... SPF also limits water movement within the building envelope since the water cannot flow within the SPF’s closed cells, even if a hole is made in the SPF.” (Mason Knowles, SPFA)</p>	<p>“SPF is an effective air barrier and weather barrier because of its ability to seamlessly fill irregular spaces and provide water resistance” Mark Bomberg, Ph.D, PE National Research Center of Canada, Construction Practice: Building Envelope and environmental Control</p>	<ul style="list-style-type: none"> - Semi-impermeable, allows for controlled breathing and drying - Uniformity and consistency enables it to resist passage of vapor equally well in all directions (from David Frane, Journal of Light Construction) - Minimizes dew point problems and condensation (Mason Knowles, SPFA)

Classes of Materials Based on Permeance¹



1. Joseph Lstiburek, Ph.D., P. Eng.
2. Reference available upon request.