



BULLETIN #8

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THERMAL PERFORMANCE CRITERIA FOR ROOF ASSEMBLIES

NRCA members have observed that a growing number of specifiers have adopted the use of "Thermal Performance Criteria" in their specifications for insulating roof and roof deck assemblies. Because of the use of these criteria, contractors must rely more than ever on manufacturer's data regarding thermal insulating values of their products. Such data, however, may not accurately represent the installed or "aged" thermal performance of the product, and, therefore, could be misleading.

Examination of a roof assembly after some years of "in-service" performance may indicate a deficiency in thermal resistance (below that which was specified), which could create a problem for all parties (owner, architect, general contractor, manufacturer, roof deck contractor and roofing contractor).

Recommendations

The specifier should not simply reference the thermal performance for a roof assembly (by specifying, for example, that $U = 0.05$). Rather, he should make calculations for the desired thermal efficiency and then specify the insulation by generic type, thickness, "C" value, density and as meeting a specific ASTM standard for the product. The following guideline is recommended if the thermal performance requirement cannot be avoided:

- Upon receipt of the contract, purchase order or any other notification of job award, the contractor should submit materials and/or current systems data to the owner through the general contractor for approval, thus establishing his basis for meeting specified thermal performance criteria. Such submittals should contain manufacturers' certifications, if available. Approved submittals should be maintained in permanent files. In addition, any testing or other quality control measures taken during installation should be documented and records maintained.