



A cooling duct can meet R-value on paper and still fail in the field. IMC 604.11–604.12 are moisture rules, not thermal rules. External insulation on cooling ducts needs a vapor retarder (maximum 0.05 perm, or aluminum foil at least 2 mils thick) with joints and seams sealed. Exterior insulation also needs an approved weatherproof barrier. One does not replace the other.

Original Masterbuild PE packet from Daily Code Talk on 2024 IMC 604.11 and 604.12. Confirm the adopted edition. Distinct from 604 location / R-value and 604.13 coil-discharge liner. This is not an insulation specification.

- ☐ **604.11: cooling ducts with external insulation — vapor retarder 0.05 perm maximum, or 2-mil aluminum foil. If the insulation is used, joints and seams sealed to keep vapor-retarder continuity. Do not leave seam sealing implied.**
- ☐ **Exception: spray polyurethane foam does not need a separate vapor retarder if water-vapor permeance is not greater than 0.05 perm.**
604.12: insulated exterior ducts protected with an approved weatherproof barrier. Exterior wrap is not automatically a complete vapor-retarder system, and a vapor retarder is not automatically weather protection.
- ☐ **On the set: identify cooling ducts with external insulation and all exterior insulated runs. M-501: continuity, seam sealing**
Schedule: permeance basis, foil basis where used, exterior protection.

The fail we see first

R-value on the schedule. Open seams on the roof. Condensation, wet insulation, reduced performance. In South Florida that is a field failure, not a paperwork miss.

What to send: whether cooling ducts are externally insulated, whether they run outdoors, and the insulation / jacket product if you have it.

Send the comments. Not the County guideline.

Folio (does it start with 30?), process or UP number, and the comments PDF. Masterbuild will say which row is actually open.

masterbuildconsulting.com/send/

+1 (786) 398-6940 · Calendly: 30-minute scoping call

Masterbuild provides engineering services under a written scope. Not an insulation specification. Confirm adopted 604.11. This is not legal advice.