How Does It Work?

When the temperature and humidity conditions reach the dew point, moisture condenses on the underside of metal roofing and forms droplets of water, which can cause damage to the contents of a building.

Roof panels with McElroy’s MoistureLok Anti-Condensation Membrane applied provide a medium for trapping this moisture in the specially designed pockets formed in the membrane. The material holds that moisture until conditions go back below the dew point and is then released back into the air in the form of normal humidity.

The McElroy Advantage:

- MoistureLok eliminates the need to inventory and install conventional vapor barrier materials.
- MoistureLok is factory applied so no more costly field labor installing on-site vapor barriers.
- MoistureLok eliminates unsightly rips and tears often associated with conventional vapor barriers.
- MoistureLok is bacteria resistant and easily cleaned with a hose or pressure washer.

MoistureLok
Available on McElroy’s:
MasterLok-90 ~ MasterLok-FS
R-Panel ~ Max-Rib ~ Multi-Rib and Mesa panels.

MoistureLok is not available at all McElroy Metal facilities. Extra lead times may apply.
What is the life expectancy of the membrane?

The anti-condensation material chosen by McElroy Metal has been on the market for over 20 years. An extensive array of accelerated aging tests has been conducted and has yet to find a point where degradation begins. The main components are polyester and rubber, which age extremely well.

Will it come off?

Once adhered to the substrate, the membrane is very difficult to remove. In fact, the bond strengthens with age.

Is there a warranty?

There is a 20-year adhesion warranty that states the membrane will stay adhered to the substrate. No other membrane warranties are applicable or implied.

Does it have any insulating property, if so, what R-value?

The R-value is nominal. Therefore, the membrane should only be promoted as an anti-condensation material.

How much condensation will the membrane hold?

Approximately one quart per every 10 square feet of membrane.

Are other colors available?

No. The main reason for the slightly gray-mix color is that it can better hide dirt and it resembles steel in color.

How long has it been tested in the market?

The manufacturer of the anti-condensation membrane has been making it for over 20 years. They have 100s of millions of square feet in every climate condition from Siberia to South America.

Can it be used for animal confinement?

Yes, the membrane has been utilized all around the world in animal confinement applications.

Does the Membrane offer any sound deadening properties?

Yes, the membrane will reduce rain noise by about 20% and will also help reduce echo noise.

Are there any mold or mildew concerns?

The main material is polyester, which does not provide food for mold or mildew. The membrane is also anti-microbial. If some organic matter gets rubbed onto the surface, some mold or mildew is a possibility. If so, the membrane can be pressure washed.

Are there concerns that bundles sitting in yards for extended periods of time get wet and harm the panel?

Just like panels without the anti-condensation membrane, care should be taken to avoid moisture getting between panels. In both cases, there is a potential for rust.

Will the membrane affect the panel surface?

There may be a slight herringbone appearance on the panel ribs. However, the herringbone will not affect the panel performance nor be visible from the ground for roofing applications.

Have any fire/burn tests been conducted?

Yes, it is UL 723 classified.

Should care be taken to prevent capillary action or wicking effects?

Yes. To prevent capillary action, the MoistureLok membrane should be field-treated (glazed) with heat to fuse the fibers. Glazing is a process of melting MoistureLok fibers to help prevent the wicking process. Please refer to McElroy Metal’s Good Design Practices - “MoistureLok and Capillary Action” flyer for more details about MoistureLok and Glazing.

Can panels be lapped?

Yes, panels can be lapped. To prevent wicking into the lap, we recommend the bottom two to three inches of overlapping panels and trim be glazed, a process of melting MoistureLok fibers. Please refer to McElroy Metal’s Good Design Practices - “MoistureLok and Capillary Action” flyer for more details about MoistureLok and Glazing.

What trims are available?

Ridge, rake, and eave trims will be available with the membrane. All trims will be manufactured without hems and are only available in 10'-3” lengths.