

# PRESSURE MOTTLING

## TECHNICAL BULLETIN



### COMMON CAUSES

MAJOR GLOSS DIFFERENCE BETWEEN THE TOP COAT AND THE BACK COAT

HIGH REWIND TENSION

TEMPERATURE: COIL WRAPPED TOO HOT, WET OR SUBJECTED TO CONDITIONS THAT ALLOW CONDENSATION IN THE COIL

DIFFERENCES IN CROSS-LINKING DENSITIES BETWEEN THE TOP COAT AND THE BACK COAT

### HOW TO TEST A SAMPLE

EXPOSURE TO SUNLIGHT

APPLY HOT WATER

HEAT THE SAMPLE



Pressure Mottling example

**Pressure mottling, also known as pressure marking or imprinting, is an uneven or irregular gloss pattern on the face of a coil sheet.**

It is generally caused by disparity in the gloss between the top and bottom surfaces of a coil. These gloss differences are then transferred with time and pressure to either surface causing the irregular pattern. **The distortion is typically temporary and will dissipate with time and exposure to heat or ambient conditions.**

Pressure mottling is generally more apparent on high gloss products, particularly on medium to dark colors and also in wax contained coatings. Pressure from adjacent wraps cause the coated surface at these pressure points to take on a frosted or scuffed appearance.

To eliminate pressure mottling that already exists, the strip may be heated or exposed to warm conditions, such as sunlight. This works because the appearance is normally a flattening or changing of the smoothness of the coating surface. A small amount of applied heat allows the coating to expand to a stable condition, thereby eliminating the characteristic appearance of pressure mottling. Typically the heat generated during the forming process is usually sufficient. In all but the most severe cases, the coating will recover and expand within a few days after the applied pressure is removed. This condition is not an application issue or an indicator of the paints' physical properties. It can be found on many roll-coated coils regardless of the supplier or applicator.



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