

TECHNICAL BULLETIN

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TOPIC Molded Hollow Core Doors - Oil Canning

On occasion, molded doors may show an effect referred to as "oil-canning". This waviness on the face of the door occurs when the skin surface is exposed to excessive moisture, causing it to expand. This expansion is limited on the perimeter of the door by internal structure, and results in the skin becoming concave or convex to varying degrees. In very severe situations, door warp may occur and the skin may delaminate from the stiles.

This excessive moisture can occur from changes in climactic conditions (relative humidity). It can also be caused by the door face being "shocked" with excessive moisture in the painting process. This is particularly true when water-based paints are used.

This oil-canning can improve over time, as doors are allowed to acclimate to environment or dry from painting, and is not a warrantable occurrence.

Using door handling best practices will prevent or minimize the occurrence. These best practices include:

- Avoid sudden changes in environmental/climactic conditions.
- Finish doors prior to delivery to site, or wait until plaster, drywall or cement is dry.
- Doors must be sealed on all six surfaces (top, bottom, edges and faces)
- Water-based paints are not recommended. If water-based paint must be used, it should be applied in light coats to prevent moisture absorption and promote fast dry. Allow each coat to dry completely before application of the next coating.
- Doors should not be leaned against a wall or suspended by the ends when painting
- Visit the websites of <u>Masonite</u> and <u>Lynden Door</u> for complete instructions and information about door handling, storage, and warranties.

Hollow core molded doors are most susceptible to oil-canning occurrence. Other door types should be considered if the choice to not follow manufacturer instructions is made:

- Solid Core Molded Doors less susceptible to oil-canning due to core construction, but not immune
- Primed Stile/Rail MDF Doors are solid MDF, and not susceptible to oil-canning
- Utilize Bayer Built Prefinishing Service doors are coated/sealed before leaving our facility. Paint application is tightly controlled and cured immediately with ultra violet light. This prevents moisture absorption into skin and protects from sudden changes in environment.



