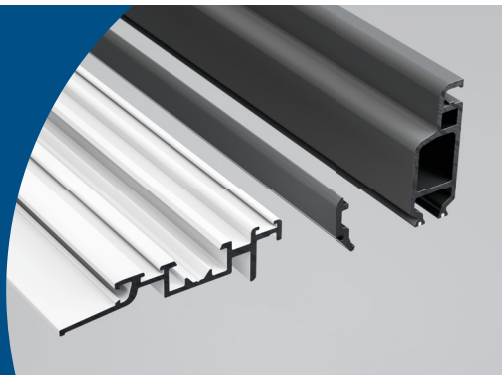
insulbar®

Ensinger

How to handle insulbar profiles with ESPOC

insulbar with ESPOC



Delivery and storage of ESPOC profiles

Storage and handling recommendations:
→ Store profiles in a dry, ventilated environment.

Withdrawal of stock for processing purposes (rolling)

Processing (rolling):
→ ESPOC profiles can be handled in the same way as standard PA 66 profiles.

RECOMMENDED:
Pre-drying before painting.
20 minutes at 180–200 °C.

Pre-drying for about 20 minutes at 180–200 °C:
→ Pre-drying is recommended to ensure the best possible powder coating results.
→ If the profile and environmental conditions are suitable, this step may not be necessary.

Powder-coating

Powder-coating processs:
→ The insulbar aluminium composite assemblies are now ready for an improved powder coating process.
→ Check and adjust your powder process to match the improved powder attraction of the insulbar profile, to avoid overspray.

Curing

Curing:
→ The dry or pre-dried insulbar aluminium composite assemblies are now prepared for curing using your standard drying parameters, with no risk of unwanted blistering.

Further treatment of the finished powder-coated assembly

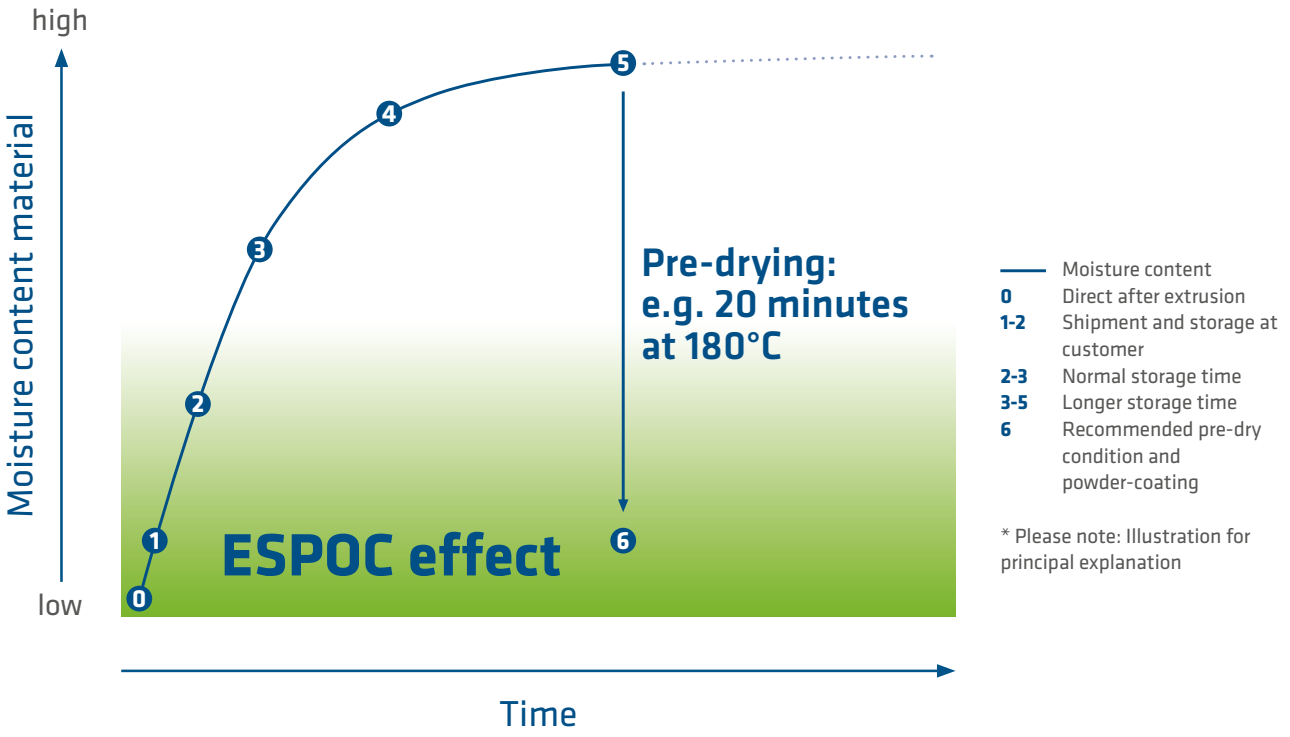
Further treatment:
→ Any further treatment is possible, and nothing special needs to be taken into account.

How does pre-drying the profiles help to improve your process?

Technological background:

The profiles are made of polyamide, a material that absorbs moisture over time. The longer they are stored, the more mositure they absorb from the surrounding humidity. Following our recommended pre-drying procedure reduces the moisture content of the insulbar profile to a level at which blistering does not occur.

Graph: Moisture content over time*



Troubleshooting matrix

Issue	Possible cause	Recommended action
Blistering	High residual moisture in the profile material.	Implement or extend the drying step.
Poor powder coverage	Contamination or loss of conductivity.	Ensure electrical contact continuity. Clean the profile and verify the integrity of the ESPOC.
Coating defects	Incorrect paint application or curing parameters.	Check for a uniform paint film across surfaces, check the oven is calibrated correctly, and ensure uniform heating.
ESPOC damage	Mechanical impact or chemical exposure.	Minimise rough handling and avoid chemical stripping.
Overspray	Improved powder attraction by ESPOC (aluminium-like).	Repositioning of the spray gun during the painting process.