Karlville Lamination & Webbing Guide

ECOELEMENT™ PE THERMAL SEALANTS

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This guide provides crucial information regarding the proper way to web EcoElement PE Thermal Sealants on a thermal laminator as well as suggested running parameters based on print web material type. Nobelus recommends operators adhere closely to these instructions to prevent damage to products or equipment.

IDENTIFYING EACH SIDE ON ECOELEMENT PE THERMAL SEALANTS

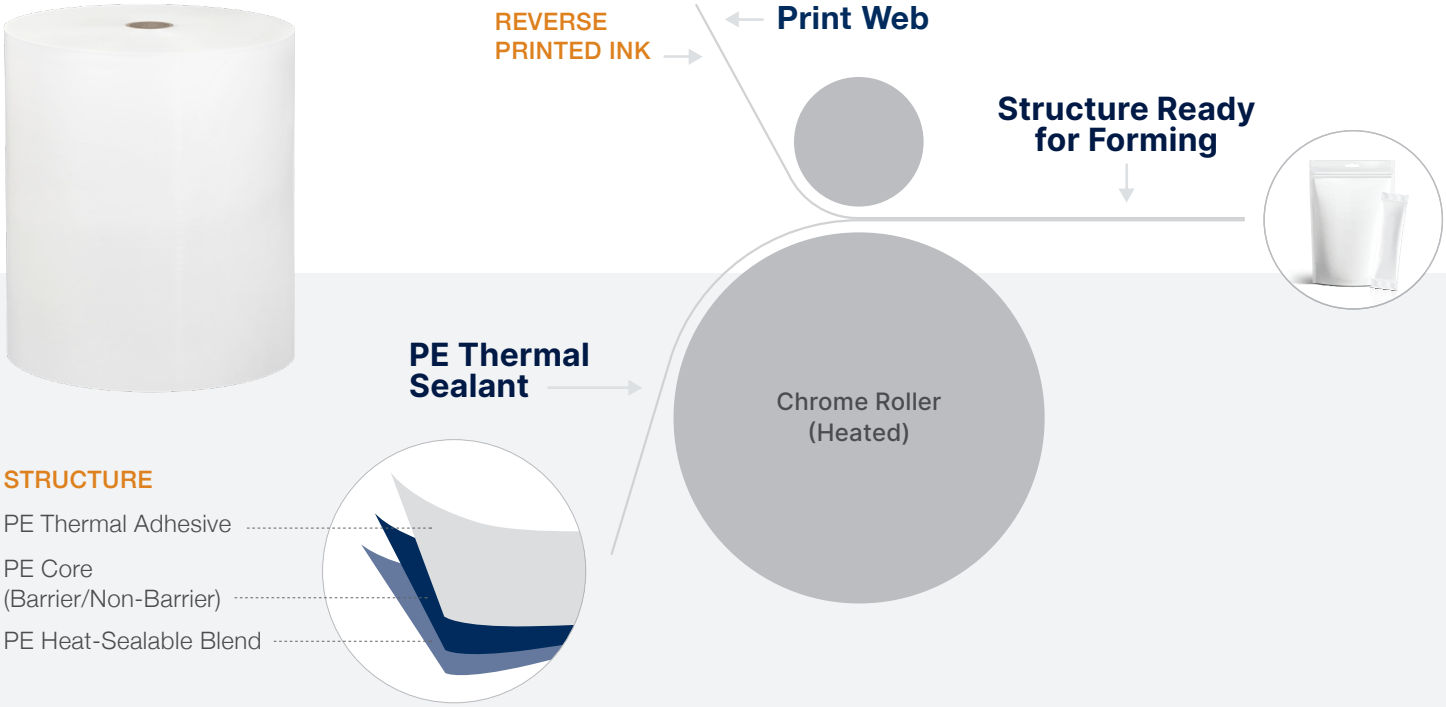
EcoElement PE Thermal Sealants include an **adhesive side** and a **sealant side**. The adhesive side should be buried against the printed film. The PE thermal sealant is shipped with a label that identifies the adhesive side. If this label is missing, identify the sides using the following criteria.

SEALANT SIDE

- Surface is slippery when pinched together.
- Surface melts around 235°F (112°C).

ADHESIVE SIDE

- Surface is tacky and will not slide when pinched together.
- Surface melts around 180°F (82°C).



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RUNNING PARAMETERS

The following parameters apply to all four products in the EcoElement PE Thermal Sealants line.

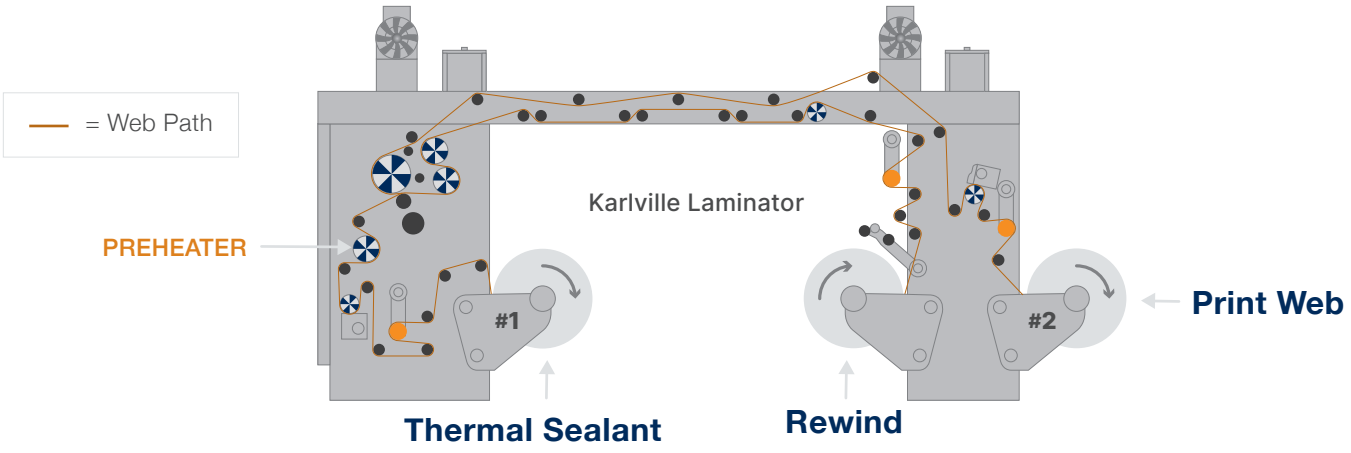
- EcoElement™ 3.5 mil PE Thermal Sealant
- EcoElement™ 3.5 mil PE EVOH Thermal
- EcoElement™ 3.5 mil White PE Thermal Sealant
- EcoElement™ 3.5 mil White PE EVOH Thermal Sealant

While this data serves as a recommended starting point, converters may need to adjust their settings slightly depending on their specific equipment.

Properties	48 ga PET Print Web	70 ga OPP Print Web	90 ga MDO PE Print Web
Main Heater Drum Temperature	120°C	120°C	110°C
Preheater Drum Temperature	-	-	75°C
Wrap Angle	100°	100°	75°
Unwind Tension	#1: 10 kg #2: 6 kg	#1: 6 kg #2: 8 kg	#1: 6 kg #2: 8 kg
Out-Feed Tension	16 kg	13 kg	-
In-Feed Tension	12 kg	12 kg	12 kg
Rewind Tension	16 kg	13 kg	14 kg
Nip Pressures	4 bar	4 bar	2 - 4 bar
Speed	50 m/min	50 m/min	100 m/min
Taper	-	-	6%

IMPORTANT MACHINE SETTINGS

- **Ensure** the **preheater** is wrapped in Teflon tape.*
- **Mount** the PE thermal sealant on **unwind #1**.
- **Mount** the print web on **unwind #2**.
- **Position** the **rewind roll** on the winder closest to the operator station.
- Both webs should be **corona treated** for best results. The recommended corona treater output is 1.2 kW.



* If your rollers are not Teflon taped, please contact your Nobelus Sales Representative.

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IMPORTANT MACHINE ADJUSTMENTS

TO IMPROVE BOND STRENGTH:

- Increase the nip pressure to 4 bar.
- Increase the drum wrap angle to 100°.

TO PREVENT CURLING TOWARD THE SEALANT SIDE:

- Adjust the in-feed tension down.

Disclaimer: Every machine is different. This document outlines general recommendations, but operators may need to adjust the machine's settings after testing. Sample rolls are available from Nobelus upon request.

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