SUSTAINABLE
Manufacturing

4Wet Technology

IMPROVEMENT SCENARIO: 4WET TECHNOLOGY

Cut paint shop direct energy demand and CO_2 emissions with Henkel 4Wet PVC sealer technology. To take measurable steps toward achieving sustainability goals, OEM production paint shops can eliminate one or more curing ovens by switching to a 4Wet paint process. Let's compare a traditional 3-oven paint shop process to a 2-oven/3Wet process and a 1-oven/4Wet paint process.

PVC/LASD APPLICATION → CURE OVEN → FILLER OR BASE COAT → CURE OVEN → SECOND BASE COAT → CLEAR COAT → CURE OVEN

Traditional 3-Oven Paint Shop Curing Process (up to 15kg CO_2 generated per vehicle processed)

PVC/LASD APPLICATION → CURE OVEN → FILLER OR BASE COAT → SECOND BASE COAT → CLEAR COAT → CURE OVEN

Intermediate 2-Oven 3Wet Curing Process (up to 5kg CO_2 saved* per vehicle processed)

PVC/LASD APPLICATION → FILLER OR BASE COAT → SECOND BASE COAT → CLEAR COAT → CURE OVEN

Optimal 1-Oven 4Wet "4-Coat 1-Bake" Process (up to 5kg additional CO_2 saved* per vehicle processed)

CUSTOMER SITUATION

Many OEMs are attempting to lower their CO_2 emissions by transitioning to a 4Wet paint process to reduce direct energy demand.

RECOMMENDED SOLUTION

To help customers reduce the number of ovens required for their paint shop configuration, Henkel offers 4Wet PVC sealer technology that is compatible with manufacturers' 4Wet paint processes.

PRODUCTION SCENARIO:

SWITCHING TO 4WET TO REDUCE OVEN USAGE

200,000
Vehicles Annually

3-OVEN SYSTEM
GENERATES UP TO **3 MILLION** kg of CO_2 Annual Yield

2-OVEN SYSTEM
SAVES* UP TO **1 MILLION** kg of CO2 Annually

1-OVEN SYSTEM
SAVES* UP TO **AN ADDITIONAL 1 MILLION** kg of CO_2 Annually

HENKEL PVC PLASTISOLS ARE COMPATIBLE WITH CO_2 EMISSION-REDUCING 4WET PROCESSES.*

Henkel

*Energy savings will vary depending on type and number of ovens removed, oven temperatures, cure times and other variables.

OUR GOAL

At Henkel, our goal is to improve sustainability across our entire product and manufacturing value chain. Since 2010, we've achieved impressive reductions in water use and waste per ton of product, but that is just the beginning. We intend to save 100 million tons of CO_2 across consumers, customers and suppliers by 2025. By 2027, we will be carbon-neutral in our largest facilities, and by 2040, all of our operations will be climate-positive.

4WET TECHNOLOGY

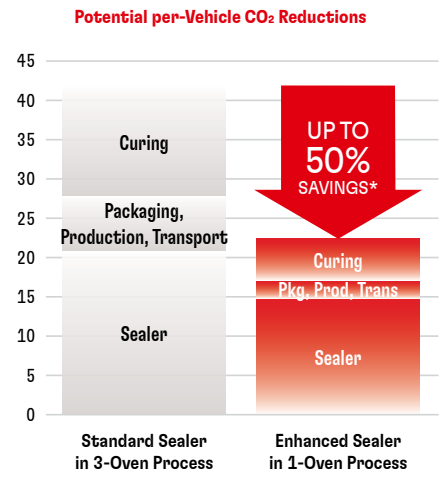
Raw Materials | Transportation | Production | Processing | Consumer Use | Disposal

CRADLE-TO-GATE **GATE-TO-GRAVE**

SUSTAINABILITY OPPORTUNITY: 4WET TECHNOLOGY

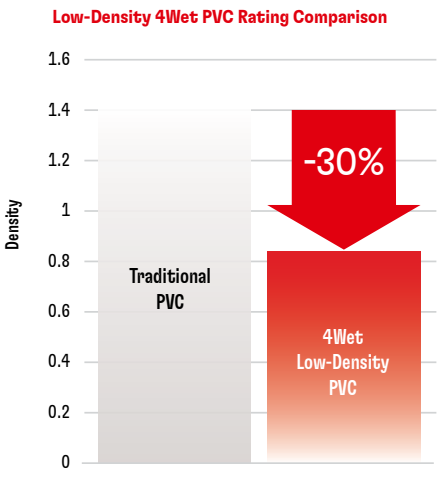
Many customers have transitioned from traditional PVC sealers to Henkel 4Wet-compatible technology. Some have cut CO_2 emissions and energy costs by eliminating up to two ovens – and reduced per-vehicle weight with low-density 4Wet PVC sealer while taking advantage of the stability, reliability and sustainability benefits that a broader process window offers.

REDUCED CO_2 EMISSIONS



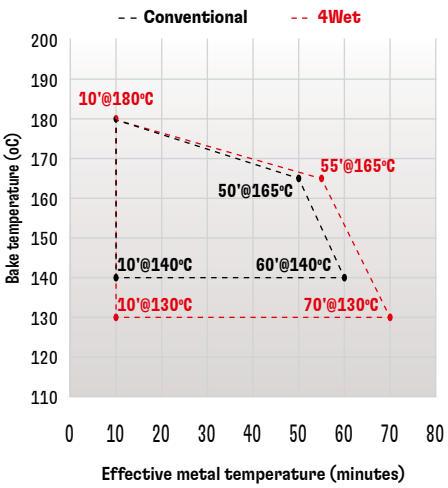
Dramatic energy savings* is possible when transitioning from traditional PVC and 3-oven systems to PVC sealer made from low-CO_2 raw materials, enhanced transportation and optimized 1-oven process.

LOW-DENSITY PVC LIGHTWEIGHTING



Low-density PVC sealer can offer significant weight reductions; larger vehicles yield even greater savings.

A BROADER PROCESS WINDOW



A broader process window ensures better process stability and reliability. A lower-temperature cure offers the potential for an oven temperature reduction.

Specially Formulated for 4Wet Processes

Our formulation of 4Wet-compatible low-density PVC ensures that it can remain ungelled until it reaches the paint cure oven. The Henkel Team can work with process engineers in your plant to assist with paint formulation compatibility.

LEARN MORE

henkel.com/sustainability

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