



IMPROVEMENT SCENARIO: 4WET TECHNOLOGY

Cut paint shop direct energy demand and CO₂ 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.



Traditional 3-Oven Paint Shop Curing Process (up to 15kg CO₂ generated per vehicle processed)



Intermediate 2-Oven 3Wet Curing Process (up to 5kg CO₂ saved* per vehicle processed)



Optimal 1-Oven 4Wet "4-Coat 1-Bake" Process (up to 5kg additional CO₂ saved* per vehicle processed)

CUSTOMER SITUATION

Many OEMs are attempting to lower their CO₂ emissions by transitioning to a 4Wet paint process to reduce direct energy demand.

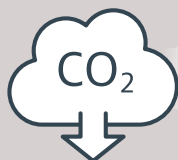
RECOMMENDED SOLUTION

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 CO₂ 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 CO₂ Annually



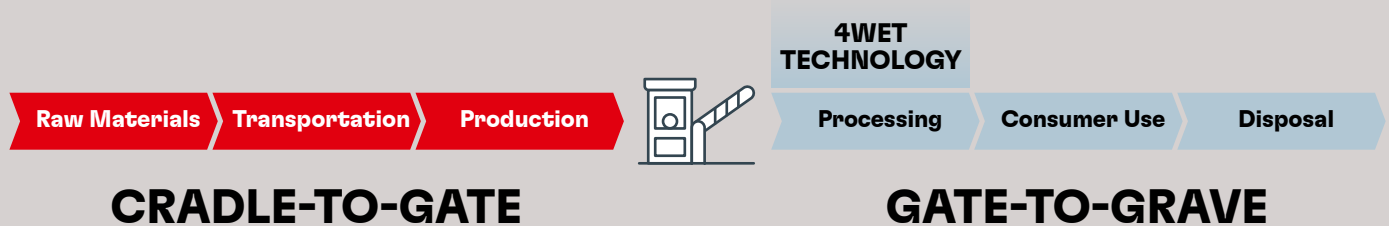
**HENKEL PVC PLASTISOLS ARE COMPATIBLE WITH
CO₂ EMISSION-REDUCING 4WET PROCESSES.***



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

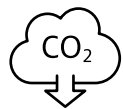
OUR GOAL

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 CO₂ 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.



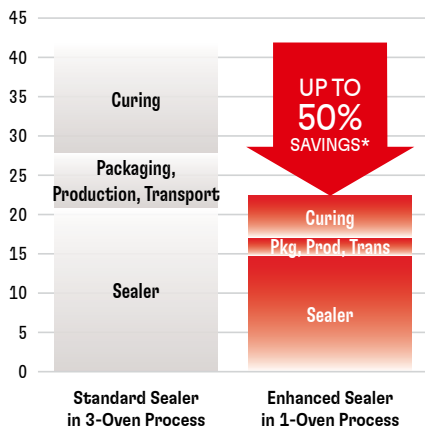
SUSTAINABILITY OPPORTUNITY: 4WET TECHNOLOGY

Many customers have transitioned from traditional PVC sealers to Henkel 4Wet-compatible technology. Some have cut CO₂ 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 CO₂ EMISSIONS

Potential per-Vehicle CO₂ Reductions

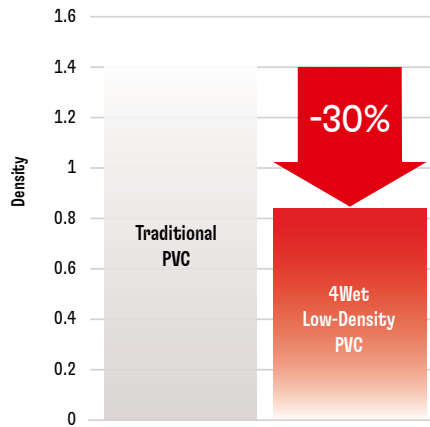


Dramatic energy savings* is possible when transitioning from traditional PVC and 3-oven systems to PVC sealer made from low-CO₂ raw materials, enhanced transportation and optimized 1-oven process.

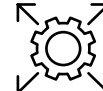


LOW-DENSITY PVC LIGHTWEIGHTING

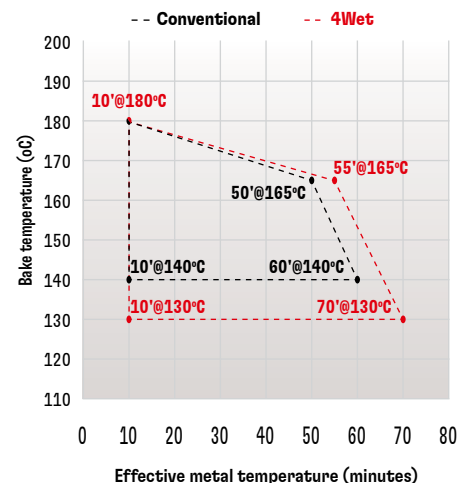
Low-Density 4Wet PVC Rating Comparison



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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