



NeoRad™ S-8100

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Low-viscosity self-initiating resins for
(indirect) food-contact compliance



An ultra-low-migration solution for inks and overprint varnishes on food packaging

The need for safer food-contact materials is driving increased adoption of advanced UV-curable inks and overprint varnishes (OPVs). In particular, the industry is beginning to move away from polymeric photoinitiator inks (PPIs) to ultra-low-migration self-initiating resins (SIRs) – but performance issues can limit SIRs' potential applications. To help formulators, converters, and packaging manufacturers deliver even safer food-contact materials, Covestro developed the low-viscosity SIR NeoRad™ S-8100.

Low-viscosity SIR with no added amine required

Unlike some SIRs, NeoRad™ S-8100 is not based on benzophenone and requires neither additional amines nor solvents. Its low viscosity enables easier formulation, compatibility with other acrylates, and suitability for flexo, OPV, and offset applications without additional monomers. Together with its fast curing and long shelf life, these properties enable safer food-contact materials with smooth production and a low total cost of ownership.

Because self-initiating moieties are built into NeoRad™ S-8100's acrylate backbone, no additional photoinitiator is required, enabling low-to-zero migration. The resin is compliant with Swiss Ordinance, German Ink Ordinance, and food-contact regulations.

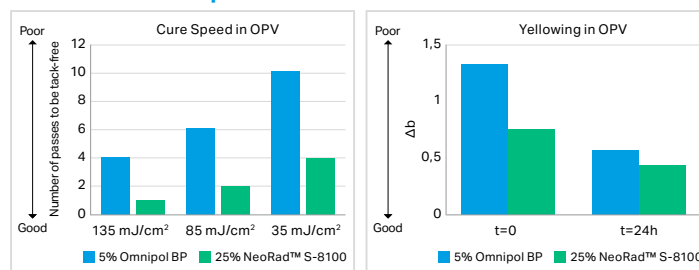
NeoRad™ S-8100 at a glance

- **Chemical base:** Hyper-branched polyester acrylate (self-initiating)
- **Application:** Inks and OPVs for (indirect) food-contact applications
- **Viscosity:** 1 – 5 Pa·s at 25 °C

Key benefits

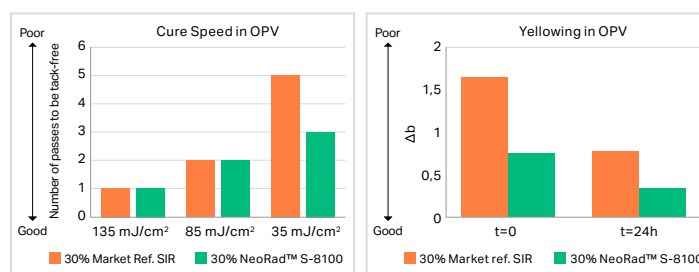
- Low-to-zero migration
- Low viscosity: 1 – 5 Pa·s at 25 °C
- Not based on benzophenone; no additional amine required
- Compatible with flexo and offset applications, as well as OPVs
- Compliant with Swiss Ordinance, German Ink Ordinance; ToxTracker tested (statements available)
- Compliant with REACH Polymer regulations
- Low cost-in-use due to facile miscibility and optimal performance in absence of additional synergist

NeoRad™ S-8100 performance in OPV vs PPI



NeoRad™ S-8100 performance in OPV vs market ref. SIR

Better cure speed and lower yellowing than market ref. SIR



Interested?

Contact our experts to learn more:



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¹Please see the "Guidance on Use of Covestro Products in a Medical Application" document.
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