FlexCURE by TIGER Coatings: a comprehensive step toward flexible and sustainable powder coating

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Reducing energy consumption while achieving ever-higher coating performance has become a key requirement for powder coating manufacturers. TIGER Coatings has introduced its FlexCURE technology which, thanks to its wide curing window, effectively meets these demands in both architectural and industrial applications.

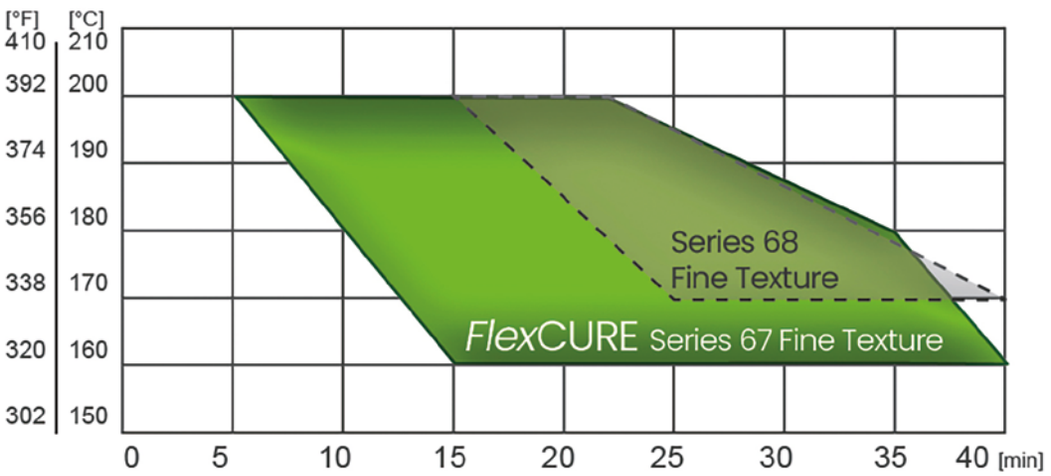
Manufacturers across industries are increasingly challenged to reduce energy consumption while maintaining high-quality and reliable coating performance. Powder coating has long been valued for its durability and ecological advantages yet evolving production environments demand technologies that offer even greater adaptability. TIGER Coatings has responded to these changing requirements with the development of its FlexCURE technology. This system introduces an extended curing window that supports energy-efficient processes while ensuring consistently high coating performance across a wide range of applications.

FlexCURE enables curing between 160 and 200 °C, a range that gives coaters significant freedom in optimizing their production parameters. Lower curing temperatures help reduce energy usage and the associated emissions, while higher temperatures remain available for functional or aesthetic requirements. The technology also allows manufacturers to process components with different material thicknesses in a single oven setting. This capability eliminates frequent adjustments of curing parameters and ensures smooth and stable production flows, even in facilities handling diverse geometries and product categories.

Within the FlexCURE portfolio, TIGER Drylac® Series 18 plays a central role, particularly in the architectural sector. This product line was developed for metal facades, doors, windows, gates and sunrooms, and it maintains full compatibility with established TIGER Drylac® Series 14 and 29 products. Provided comparable curing, its finishes match existing colour and gloss levels while meeting the quality standards of QUALICOAT Class 1 and GSB Florida 1. Series 18 delivers high processing safety and provides a reliable balance of adaptability and durability. It benefits from the full FlexCURE curing flexibility, allowing users to choose between low-temperature curing beginning at 160 degrees Celsius or shorter curing cycles at increased line speeds. This flexibility supports efficient project planning and enables consistent coating quality, even under varying production conditions. Furthermore, Series 18 offers excellent resistance to protective films and packaging materials and supports regular cleaning and maintenance cycles.

TIGER Drylac Series 67 extends the FlexCURE advantages to high-performance architectural applications that require superior durability and weather stability. Developed for premium façade systems and exterior construction elements, Series 67 meets QUALICOAT Class 2 and GSB Florida 3 certifications. It delivers long-lasting resistance against UV exposure, chemical stress and mechanical wear. Its fine-texture surfaces provide a refined aesthetic while maintaining robust physical properties, ensuring that architectural components remain visually stable and structurally resilient over time. Series 67's compatibility with existing TIGER Drylac® standard products mirrors the transition approach of Series 18 and further reinforces the principle of maintaining consistent oven settings throughout production.

Industrial coating operations also benefit significantly from FlexCURE technology. With processes often involving materials of different thicknesses and varying thermal behaviour, many facilities struggle to maintain operational efficiency while ensuring uniform coating quality.



substrate temp.	min. curing time	max. curing time
200 °C	5 minutes	22 minutes
180 °C	10 minutes	35 minutes
160 °C	15 minutes	40 minutes

By way of illustration, the graphic illustrates the new extended curing window of Series 67 Fine Texture to overlap significantly with the previous one.

FlexCURE addresses these challenges directly. Series 45, designed specifically for industrial applications, offers the ability to cure reliably between 150 and 200 °C. This wide temperature range supports stable performance in fast-paced production environments and ensures reliable surface results across diverse substrates. It also simplifies production planning and minimizes the need for system changes, which helps reduce operational downtime.
TIGER Coatings has planned a smooth and customer-friendly transition toward FlexCURE technology. With the transition having already started last year, selected standard products were shifted to optimized FlexCURE-based formulations. The rollout started and has been finished by now with TIGER Drylac® Series 67 in fine texture, which replaced the existing high-weather-resistant products from Series 68. Crucially, color shades, gloss levels and surface textures ats well as the product numbers remained unchanged during this transition. This ensured that customers can continue their ordering processes without interruption or uncertainty. The same principle of continuity applies to Series 18, where compatibility with existing formulations warrants a seamless integration into established workflows.
Across all sectors, FlexCURE contributes to more sustainable and resilient production environments. Its extended curing window supports energy optimization without compromising coating performance. Its compatibility with existing product lines reduces operational complexity. Its surface durability enhances long-term product quality. By combining these qualities, FlexCURE offers manufacturers a dependable and future-oriented solution that aligns with increasing ecological expectations and economic pressures.

TIGER Coatings invites companies to explore how FlexCURE can enhance production stability, streamline workflows and support sustainability goals. With Series 18, Series 67 and Series 45, the FlexCURE portfolio covers the full spectrum of architectural and industrial applications, delivering a technological foundation designed for the demands of modern coating processes.