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February 7, 2025

Toyobo to boost the production capability of COSMOSHINE SRF® films for LCD screens by 30%, through renovation of Tsuruga Film Plant. New facility capable of producing films up to 3 meters wide to start mass production in fiscal 2026 -

Toyobo Co., Ltd. has decided to renovate a PET (polyethylene terephthalate) film production facility at its Tsuruga Film Plant to boost the production capability of the COSMOSHINE SRF®. The product, a super retardation film for polarizer protection that eliminates the rainbow pattern on screens, is being used for liquid crystal displays.

Toyobo plans to establish a mass-production system at the plant located at its Tsuruga Research and Production Center in Tsuruga, Fukui Prefecture, within the fiscal year ending in March 2026. Mass production at the new facility is scheduled to start in fiscal 2026, enabling production of COSMOSHINE SRF_{\circledast} film up to 3 meters wide to meet the need for larger displays.



The comparison of the rainbow pattern in a Toyobo conventional film, left, and COSMOSHINE SRF[®], right.

Tsuruga Film Plant

Schematic diagram of a general liquid crystal

COSMOSHINE SRF $_{\mbox{\tiny B}}$, which Toyobo introduced to the market in 2013, is the only PET film available for polarizer protection in liquid crystal displays. Harnessing its unique film formation and material technologies, as well as the concept of "super retardation", Toyobo was able to eliminate the rainbow pattern, or color irregularities, unique to general PET films.

Adoption of COSMOSHINE SRF_®, the PET film which excels in water resistance and durability comparted to previously mainstream materials such as TAC (triacetylcellulose) used for the same purpose, has been increased in recent years due to the high marks it has received for its property of avoiding curvature and distortion resulting from moisture absorption. Currently, the product has an approximately $60\%^{*1}$ market share in the global market of polarizer protection films for liquid crystal displays. The market is expected to grow about $3\%^{*2}$ a year until 2030 as liquid crystal display screens become larger.

To deal with this projected increase in demand, Toyobo has decided to renovate its production facility at the Tsuruga Film Plant to quickly boost the production capability of COSMOSHINE $SRF_{\centbrace{1.5}}$. The renovated facility will be able to produce 3-meter-wide COSMOSHINE $SRF_{\centbrace{1.5}}$ films – wider than previous films. While flexibly responding to requests for wider films from polarizer panel manufacturing clients, Toyobo aims to expand its adoption by other manufacturers. The renovation will enable Toyobo to produce COSMOSHINE $SRF_{\centbrace{1.5}}$ at a total of four factory lines, including the existing line at the Tsuruga plant and two lines at its Inuyama Plant (in Aichi Prefecture), enabling the company to boost production of the product by as much as 30%.

Toyobo has positioned its industrial film business as one of key focus areas in its 2025 Medium-term Management Plan. The company will respond to clients' need for wider products by offering its unique industrial films. In addition to COSMOSHINE SRF_®, it produces COSMOPEEL_®, a release film used in the manufacturing process of multilayer ceramic capacitators, whose demand is expected to grow for AI servers and data centers; and TEONEX_®, a PEN (Poly Ethylene Naphthalate) film being used for fuel-cell vehicles as well as motors at wind power generation facilities.

*1: According to Toyobo's investigation as of February 7, 2025

*2: According to Toyobo's investigation as of February 7, 2025, based on data of research companies