Major products

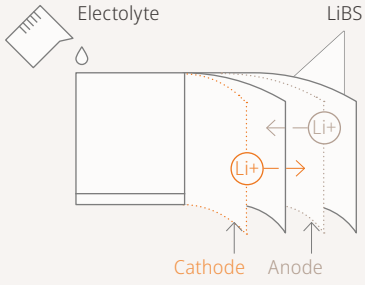
Major products of SKIET include LiBS, CCS and FCW.

LiBS (Lithium-ion Battery Separator)

SKIET is the first company in Korea and the third in the world to exclusively develop separators, a key component in lithium-ion batteries, by applying chemical technologies accumulated over a span of 50 years and advanced nano-technologies in 2004.

Aiming to become the world's-best LiBS manufacturer | Since our first technical research in 1998, we have continuously developed technology and obtained multiple patents. Ever since we succeeded in the first commercial operation of Line No. 1 in 2005, we are now developing and providing separators for IT devices and heat-resistant separator for EV batteries from Jeungpyeong/Cheongju Plant in Korea as well as overseas production network (in China and Poland). We are not complacent with our current technical superiority, but rather strive for the technical innovations which in the end will lead us to becoming the best LiBS manufacturer in the world.

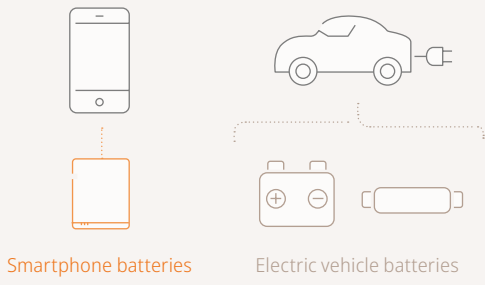
Features



· Capable of implementing diverse properties (high permeability / high strength / low shrinkage)

· Excellent reliability on fine and uniform micropore structure

Use



· Smartphone batteries, Laptop and tablet PC batteries, Power-tool batteries

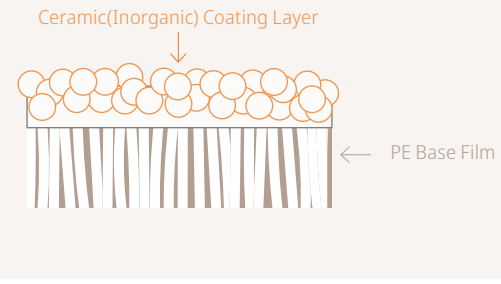
· Electric bicycle batteries, Electric vehicle batteries (hybrid, plug-in, EV)

· Energy storage batteries (ESS, smart-grid, emergency power batteries, etc.)

CCS (Ceramic Coated Separator)

Improving cell stability and function through CCS technology | CCS is a technology that applies a fine ceramic layer on the separator, greatly increasing the durability of the separator. This can reduce the risk of fire by preventing the separator from deforming or shrinking due to heat generated by the large-capacity battery.

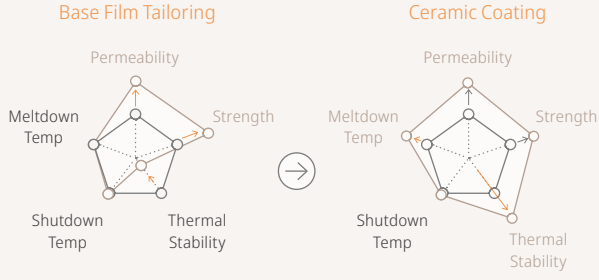
Structure



· Supplement porous inorganic coating layer to the high quality separator (base film) of SKIET

· Improve thermal stability (safety) and life-cycle of battery with high heat-resistance coating technology on both sides

Technical Features



· Excellent electrolyte wettability

. Increase meltdown temperature

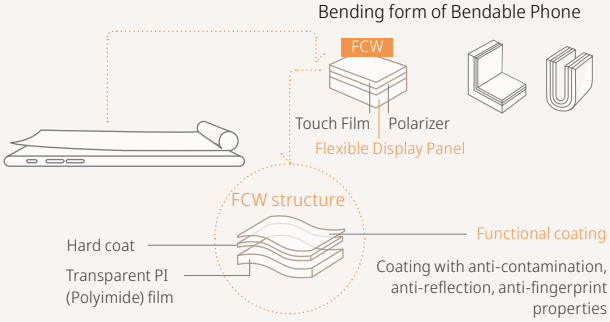
. Excellent thermal stability

FCW (Flexible Cover Window)

SKIET's next-generation display material business has acquired better quality- and price- competitiveness than its competitors by producing key raw materials independently, and securing advanced technologies of manufacturing products.

Core technology in all areas of FCW development | FCW is a new-generation material, consisting of transparent Pl film and hard coat, to replace the glass cover window of flexible display for foldable/bendable IT devices and automotive. FCW realizes outstanding optical performance, modulus and bending performance for foldable/bendable/stretchable displays by processing a functional hard coating on a transparent PI film. SKIET can provide a total solution for manufacturing FCW with basic material synthesis, transparent PI film manufacturing and functional hard coating technology

FCW Structure



Use



Case. Separator markets and SKIET

Among separator manufacturers, companies that have the technology and production capacity to meet the component requirements for top-tier battery supplied to major global automotive companies are classified as Tier-1 separator manufacturers. These Tier-1 companies trade with leading battery companies such as SK Innovation, Samsung SDI, LG Energy Solution, and Panasonic, the main clients of the materials. Among Tier-1 companies that have gained dominance in the market, SKIET boasts the largest market share.

Status of SKIET's market share among the global Tier-1 wet-type separator providers in 2020* (Unit: million m^2)

Ranking	Company name	Nationality	Production capacity	Market share
1	SK ie technology	Korea	491	26.5%
2	Asahi Kasei	Japan	440	23.7%
3	Toray	Japan	438	23.6%
4	Yunnan Energy New Material	China	278	15.0%
5	W-Scope	Japan	144	7.8%
6	Sumitomo Chemical	Japan	64	3.5%

* Market outlook for global EV batteries and separators (SNE Research)

