



S-LECTM Solar Control Film

Interlayer Film for Automobiles



Leading technology, leading the way

A laminated glass with a flexible
and intense sheet of interlayer film,
with performance that surpasses
the qualities of a conventional
mono-layer glass.



This glass has become essential in today's highly advanced car models.

SEKISUI S-LEC™ Film is a polyvinyl butyral film (PVB) resin
with superior transparency and adhesive quality,
perfect for realizing the various functions required for automotive glass.

In addition to safety, crime prevention and UV filtering,
the film features many different functions to enhance the interior environment,
helping to create comfortable and efficient car models.

SEKISUI S-LEC™ Film - industry leader in automotive interlayer films.



Leading technology, leading the way

S-LEC™ Film Key Performance



Keeps all shattered bits in one

Broken glass shatters into pieces, flying in all directions. The same is true for tempered glass. When accidents occur, drivers lose visibility with a smashed windshield. However, damage could become extremely serious if occupants crash through a windshield. S-LEC™ Film, with high impenetrability, will protect the glass from shattering, saving visibility by minimizing the crash to only a spider web-like crack on the windshield. As a result, even if glass does break, fragments adhere to the interlayer film, preventing the shattering, and minimizing the likelihood of occupant injury.



S-LEC™ versus Hammers



Glass is fragile. Even tempered glass could break easily. Car thieves can break glass in an instant. However, tremendous intensity is added with S-LEC™ Film between the two sheets of glass. Thieves cannot break the glass easily when laminated glass with S-LEC™ Film is used.

Sun screen glass

Sunbeams contain ultraviolet rays which can cause sunburns and color fade for car interiors. The rays can also cause skin cancer and retinal damage. With the growing hole in the ozone layer, the threat towards ultraviolet rays is becoming increasingly alarming than ever before. S-LEC™ Film filters out more than 99% of these harmful ultraviolet rays. S-LEC™ Film is the key to maintaining the beauty of both passengers and the car interior.



Blocking out rays and fuel overuse.

Solar Control

S-LEC™ Solar Control Film



Blocking out the scorching rays.

Being able to dress in your favorite outfit, looking your best regardless of the scorching heat. Cars must be able to fulfill such passengers' wishes. S-LEC™ Solar Control Film has the ability to block infrared and ultraviolet rays. Infrared rays could irritate your skin and extremely increase the car temperature. S-LEC™ Solar Control Film blocks these rays, minimizing the negative factors for the skin and the increase of temperature in the car. With S-LEC™ Solar Control Film, you can continue looking your best even under the scorching hot sun. Especially during the summer, windshield equipped with S-LEC™ Solar Control Film will block sunrays, reducing approximately 10 degrees on steering wheels compared to those under standard windshields. This is realized by S-LEC™ Solar Control Film technology which effectively controls the transmission of infrared rays (wavelength 1500 - 2100nm).

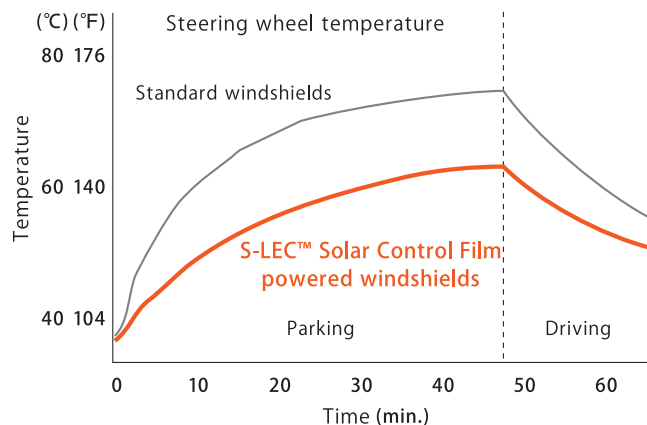
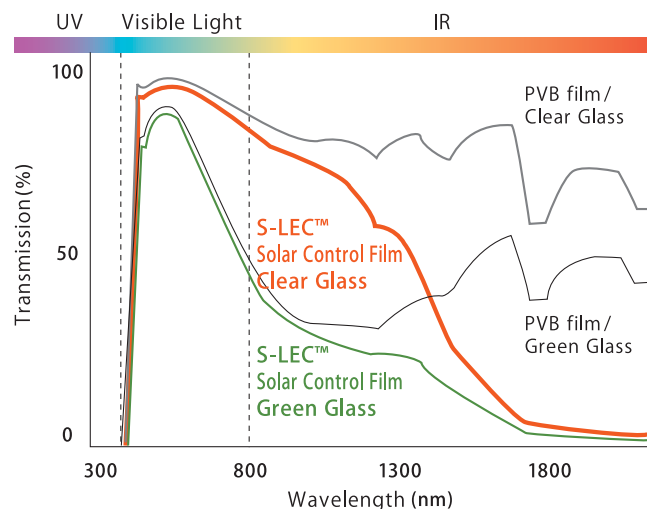
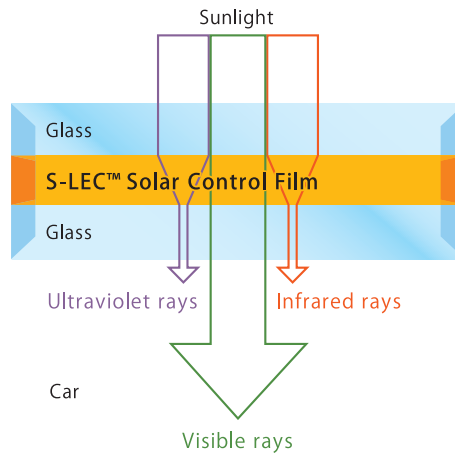
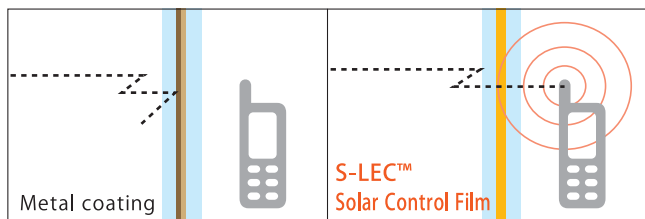
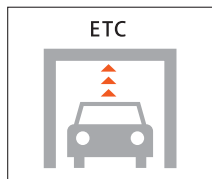
Electromagnetic wave transmission



Balancing communication and coolness.

Today mobile communication is a necessity for business and pleasure. However, standard heat reflecting glass with metal coating reflects radio waves, which makes it difficult for mobile phones to receive waves. S-LEC™ Solar Control Film allows major radio waves of all frequencies to transmit through glass, while blocking the harmful rays. S-LEC™ Solar Control Film is also compatible with the recent expanding Electronic Toll Collection (ETC) system on freeways, unlike other heat reflecting glass with metal coating.

N.B. Use of mobile phones while driving is prohibited by law in certain areas.



Ecology



'Eco-friendly' is 'People-friendly!'

The higher the temperature, the more air conditioning we use. This puts burden on the engine, resulting in more fuel use. Not only does S-LEC™ Solar Control Film prevent the increase of the car temperature, it also helps in reducing fuel consumption and carbon dioxide emission by decreasing the overuse of air conditioners. Tests have clearly shown how temperatures can control fuel consumption*. Imagine how much fuel could be saved if all cars are equipped with S-LEC™ Solar Control Film. Car manufacturing has now shifted to the same direction as global warming prevention and economy of petroleum resources.

*Air conditioned light cars in traffic jams can expect approx. 3% improvement in fuel economy.
(Reference: Society of Automotive Engineers of Japan,
Tested by Asahi Glass Ltd., /Mitsubishi Automotive Engineering Co., Ltd.)



S-LEC™ Solar Control Film

Comparison of Solar Control Products

Heat Cut-off Method	Heat Reflective Glass	Heat Reflective PET	Solar Control Film
●Composition	Heat Reflective Glass／PVB film／Glass	Glass／PVB film／Heat Reflective PET／PVB film／Glass	Glass／Solar Control Film／Glass
●Heat Insulation	OK	OK	OK
●EM Transmission	N.G.	N.G.	OK

Comparison of Solar Control Performance

Composition	Visible Light Transmission(TV) (%)	Direct Solar Transmission(TS) (%)
●Clear Glass／PVB film／Clear Glass	89	77
●Clear Glass／Solar Control Film／Clear Glass	87	65
●Green Glass／Solar Control Film／Green Glass	77	47

Product Specification

Product	Thickness (mm)	Length (m)
●S-LEC™ Solar Control Film	0.76 (30mil)	125、250、510

Color : Available in both Clear and Shade. Width : Available upon request. Length/Thickness : Please consult your SEKISUI Sales Representative.
Data tested by SEKISUI. SEKISUI is not responsible for the data or any damage related to the figures above.

EUROPE

The Netherlands

SEKISUI S-LEC B.V. Metaalweg 5, 6045 JB Roermond, The Netherlands TEL:+31-(0)475-349900 FAX:+31-(0)475-349999

AMERICA

USA

SEKISUI S-LEC AMERICA, LLC. 1200 Rolling Hills Lane, Winchester, KENTUCKY 40391, USA TEL:+1-(0)859-745-4676 FAX:+1-(0)859-745-4677

Mexico

SEKISUI S-LEC MEXICO S.A. de C.V. Calle 21E, No.524 Civac, 62500, Cuernavaca, Morelos, Mexico TEL:+52-777-329-06-01 FAX:+52-777-319-06-75

ASIA

Japan

SEKISUI CHEMICAL CO., LTD. Tokyo Sales Office, Toranomon 2-Chome Tower, 2-3-17 Toranomon, Minato-ku, Tokyo 105-8450, Japan

TEL:+81-(0)3-5521-0675 FAX:+81-(0)3-5521-0676

Korea

SEKISUI KOREA CO., LTD. Rm 1405, Soonhwa Bldg., 5-2 Soonhwa-Dong, Chung-Gu, Seoul 100-130, Korea TEL:+82-(0)2-319-9471 FAX:+82-(0)2-319-9475

China / Suzhou

SEKISUI S-LEC (SUZHOU) CO., LTD. No.25 Taishan Rd., Suzhou New District, Suzhou, Jiangsu Province, 215219, China

TEL:+86-(0)512-6661-8181 FAX:+86-(0)512-6661-8383

China / Shanghai

SEKISUI S-LEC (SUZHOU) CO., LTD. Shanghai Office, Room 701, City Gateway, No.398 Caoxibei Road, Shanghai, China

TEL:+86-(0)21-6426-8877 FAX:+86-(0)21-6426-7318

Taiwan

SEKISUI CHEMICAL (TAIWAN) CO., LTD. Room A. 10F, No.2, Sec.2, Nanjing E. Rd., Taipei, Taiwan, R.O.C.

TEL:+886-(0)2-2523-5335 FAX:+886-(0)2-2523-5336

Thailand

SEKISUI S-LEC (THAILAND) CO., LTD. 64/31 Moo4 Eastern Seaboard Industrial Estate, T. Pluakdaeng

A. Pluakdaeng Rayong 21140, Thailand TEL:+66-(0)38-955-430 FAX:+66-(0)38-955-427

www.s-lecfilm.com (AMERICA.ASIA)

www.s-lec.eu (EUROPE)



Leading technology, leading the way