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# Global Climate Change

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## Clean Products

### Materials that improve fuel economy of automobiles

**Solution styrene-butadiene rubber (S-SBR)** has been in the spotlight these past few years as a tire material that contributes to better fuel economy in automobiles. S-SBR is used in the treads of tires that come in contact with the pavement, reducing the roll resistance of tires (resistance in the opposite direction of travel) to improve fuel economy by 10% or more compared with conventional products. For the sake of safety, sufficient tire grip is also required so the vehicle stops when the brakes are applied. S-SBR strikes an optimal balance between these two contradictory requirements. With demand for tires that improve fuel economy likely to expand around the world, Sumitomo Chemical bolstered its supply structure by building a new plant in March 2014 in Singapore for producing S-SBR.



New S-SBR plant in Singapore

Sumitomo Chemical also produces and sells **diesel particulate filters (DPFs) for diesel engines**. Our DPFs, made from aluminum titanate, feature excellent heat resistance and a spe-

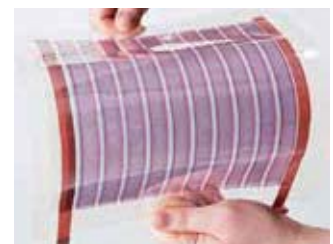


Diesel particulate filter (DPF) for diesel engines

cial structure that continuously captures a high volume of particulate. In Europe, Sumitomo Chemical is responding to strengthening market needs for DPFs, launching a production plant in Poland in 2013 ahead of the requirement that DPFs be installed on diesel engines starting in 2014.

### Creating the potential for next-generation solar power generation

Sumitomo Chemical continues to develop **organic photovoltaics (OPV)** in tandem with the penetration of solar power generation. Mainstream silicon-based solar cells are heavy, restricting where they can be installed, and require a large amount of energy to manufacture. OPV can be made using simple printing and coating production processes, and are light, bendable and translucent. OPV are suitable for a wide variety of applications for generating electricity, because they can be installed where conventional solar panels cannot be installed. The Company's OPV achieved a world-class conversion efficiency ratio of 10.6% (certified by NREL in the U.S.) in 2012. We are focusing all of our efforts on commercializing them as early as possible.



Organic photovoltaics (OPV)

## The Sumitomo Spirit lives on in S-SBR

Sumitomo Chemical's S-SBR has been praised by customers for its high scores in both fuel economy and tire grip. S-SBR is a classic example of the Sumitomo Spirit—its business interest must always be in harmony with public interest. We take pride in being able to contribute to society through our work. Recently, new issues have taken the forefront in R&D activities to extend the service life of tires, namely roll resistance, tire grip and improved resistance to wear. Sumitomo Chemical will continue to take on these challenges in the creation of automotive products that help conserve energy and resources.

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