

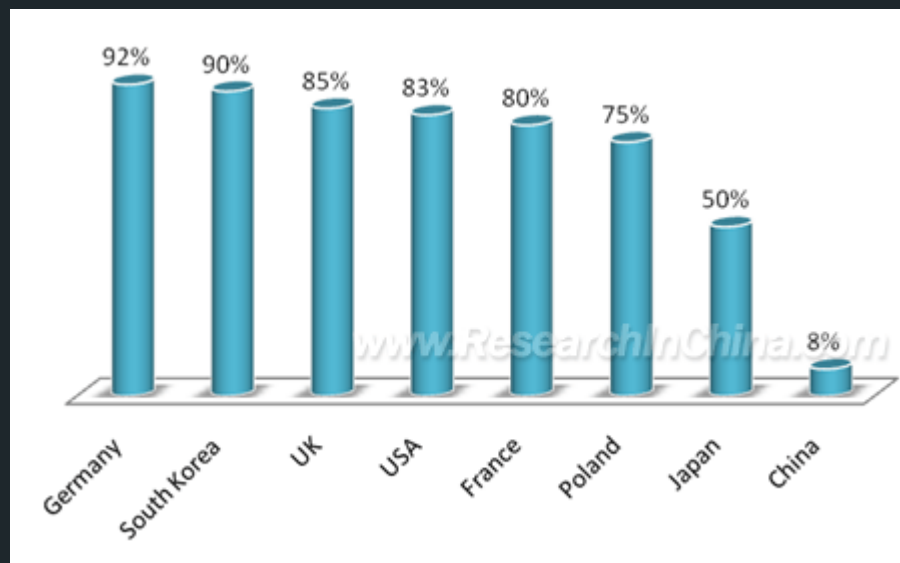
Global and China Low-E Glass Industry Report, 2010



Based on a comprehensive analysis of energy consumption in the aftermath of the energy crisis in 1970s, it has become a global consensus that buildings account for a significant proportion of energy consumption, and standards as well as laws and regulations for the implementation of such standards should be formulated for the energy saving of buildings. As a result, governments worldwide have successively established their own energy-efficient standards for buildings, and implemented a variety of policies to promote energy-efficient building materials, which has greatly boosted the application of low emissivity (Low-E) glass. The sales of Low-E glass worldwide grew rapidly during 1990-2005, and exceeded 250 million m² in 2005, with a CAGR of around 18%.

Currently, Low-E glass is widely applied in developed countries. The utilization rate of Low-E glass is 92% in Germany, 90% in South Korea and 75% in Poland. While in China, the penetration rate of energy-efficient glass is only 10%, and the Low-E glass' 8%. Therefore, China will have a large space for the development of Low-E glass in the future, and will see rapid growth of Low-E glass in the coming years. It is projected that a total of 148 million m² of Low-E glass will be applied in the public and residential buildings by 2012.

Low-E Glass Penetration Rate in Major Countries, 2009



Source: ResearchInChina

Besides analyzing the supply and demand of Low-E glass in China and worldwide, the report also delves into the four key global Low-E glass companies - PPG Industries, NSG, AGC and Saint-Gobain, as well as eleven key Chinese companies like CSG, TGI, Xinyi Glass and Yaohua Pilkington.

The Low-E glass production lines in China, mostly adopting offline process, are dominated by large companies such as CSG, Xinyi Glass and Yaohua Pilkington, and it is difficult for small companies to enter the industry. Taking CSG as an example, architectural glass business accounted for 25.98% of the company's total operating income in H1 2010, and is expected to continue to grow along with the Low-E glass projects successively put into production in 2010-2011.

Investment Plan for CSG Architectural Glass Projects

Project	Investment (RMB10,000)	Progress
New Reflective Glass Production Line of Chengdu CSG	24800	With an annual capacity of 1.2 million m ² , it is about to start trial production.
Expansion Project of Dongguan CSG Architectural Glass Co., Ltd	47579	With an annual capacity of 1.2 million m ² of reflective hollow glass and an annual capacity of 3 million m ² of reflective plate glass, the projects are expected to be put into production in Jul, 2011 and Mar, 2012 respectively.
Expansion Project of Wujiang CSG Huadong Architectural Glass Co., Ltd	47913	With an annual capacity of 1.2 million m ² of reflective hollow glass and an annual capacity of 3 million m ² of reflective plate glass, the projects are expected to be put into production in Jun and Dec, 2011 respectively.
Expansion Project of Chengdu CSG Glass Co., Ltd	19835	With an annual capacity of 3 million m ² of reflective plate glass, the project is expected to be put into production in Aug, 2011

Source: CSG, ResearchInChina

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