

For immediate release

PERLAST ENTERS SOLAR MARKET

Leading high performance sealing solution provider, Perlast Ltd (part of Precision Polymer Engineering Ltd) is leveraging its 15 years' experience in manufacturing seals for the flat panel display (FPD) industry to enter the thin film solar market. With similar manufacturing processes employed in the two industries, Perlast's proven track record and high performance materials have enabled the company to extend its offering of innovative, bespoke seals to thin-film solar panel manufacturers. Solar is on track to become the leading alternative energy source to fossil fuels in the future and some forecasters are indicating that worldwide thin-film solar production will grow eightfold by 2010.¹

Employing a number of vacuum-based processes, from PECVD silicon deposition to lamination of the finished module, thin-film solar panel manufacture creates extreme operating conditions and distinct requirements. Perlast's custom materials minimise contamination, offer excellent chemical resistance, increased seal life expectancy and reduced cost of ownership. The materials used are extremely pure with low out-gassing properties which eliminate particulation.

Perlast's state-of-the-art manufacturing facility offers one of the world's largest clean-room based molding presses. Fully molded O-rings, door seals, chamber seals and custom profiles are manufactured in one processing action, providing the most repeatable, accurate, high quality parts. This technology overcomes the challenges seen with manual endless molding techniques and jointed O-rings.

Particularly suitable for solar panel manufacture, Perlast G76W offers an excellent plasma gas resistance, aggressive chemical resistance and an exceptionally low compression set for advanced sealing performance. Superior mechanical properties and high elongation and tensile strength add to its appeal. FKM grade V74C also offers a low compression set and superior heat ageing properties. It has been engineered to retain its mechanical properties significantly longer than conventional FKM grades, even under extreme temperature cycling, thereby providing increased service life and significantly lowering the cost of ownership.

David Holt, business development director at Perlast comments: "The similarities between the thin film solar and semiconductor industries in terms of manufacturing processes are clear. Our strength and experience in the semiconductor industry allows us to understand the needs, challenges and constraints of solar panel manufacture. However, as a provider of custom seals to suit exact processing conditions and requirements, we're also well positioned to respond to the unique sealing challenges of the solar industry, which are sure to increase as the industry grows. As output in the solar industry continues to increase, the critical importance of sealing and how high performance seals can improve efficiencies and reduce the cost of ownership will play a key role in the growth of the solar market."

¹ Greentech Media and Prometheus Institute, September 2008