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Press Release

Hybrid Plastics Wins 2009 R&D 100 Award for POSS[®] Flow Aids

Hattiesburg, MS: R&D Magazine announced Hybrid Plastics, Inc. as a winner of its prestigious 2009 R&D 100 Award for the company's POSS[®] Flow Aids. These awards salute the 100 most technologically significant products introduced into the marketplace worldwide over the past year. "The R&D 100 Awards honor the latest technology developments that are designed to meet societal, scientific, or business challenges facing us today—and tomorrow," said Rita Peters, editorial director of *R&D Magazine*. Winners of the R&D 100 Awards are selected by an independent judging panel and the editors of R&D Magazine.

Since 1963, the R&D 100 Awards have identified revolutionary technologies newly introduced to the market. Many of these have become household names, helping shape everyday life for many Americans. This represents the second time Hybrid Plastics has received an R&D 100 Award. The first was in 2000 for the company's Molecular Silicas[®], a family of nanoscopic silica and carbon based hybrid additives, which dramatically improve the strength, heat resistance and hydrophobicity of traditional plastics.

POSS[®] Nanostructured[®] Chemical technology, when used as a processing flow aid, effectively increases the melt flow of virtually any thermoplastic resin and is thermally stable enough for even the highest temperature plastics. POSS[®] additives are non-abrasive, non-blooming and non-migrating. Unlike other nano-fillers, POSS[®] molecularly dissolves into the resin and does not affect optical clarity or mechanical properties.

POSS Flow[®] technology achieves increased hydrophobicity and lower coefficient of friction through structural control at the nanometer level. These enhancements can be realized in most thermoplastic materials and are controlled by the nanoscopic size and reliable dispersion of POSS[®] cages throughout the resin, thereby, improving molding of hard-to-process materials. The POSS[®] Flow Aids are thermally stable up to 400 °C



Hybrid has developed a platform technology called POSS[®] (Polyhedral Oligomeric Silsesquioxane). It is a revolutionary new Nanotechnology based on silicon-derived building blocks that provide nanometer-scale control to dramatically improve the thermal and mechanical properties of traditional polymers while offering easy incorporation using existing manufacturing protocols. They release no VOCs, and, thereby, produce no odor or air pollution. They are biocompatible, recyclable, non-flammable, and competitively priced with traditional polymer feedstocks. POSS[®] nanoscopic chemical technology provides unique opportunities to create revolutionary material combinations through melding the desirable properties of ceramics and polymers at the 1 nm level. These new materials enable the circumvention of classic material performance trade-offs by accessing new properties and exploiting the synergy between materials that only occur when the length-scale of morphology and the fundamental physics associated with a property coincide on the nanoscale.

Earlier this year the company received a Frost and Sullivan *Best Practices Award*. Frost & Sullivan stated "Hybrid Plastics' customer service is unparalleled in the high performance fillers market." "The company is recognized for its rapid turnaround of unique new products according to customer requirements and the additional assistance provided to customers to enable them to optimally utilize these products." Hybrid Plastics was one of five finalists in Small Times Magazine's 2002 *Best of Small Tech Award*. In December 2005, a *Presidential Determination* deemed POSS[®] Nanotechnology to be in the strategic national interest of the United States.

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