



A E G I S

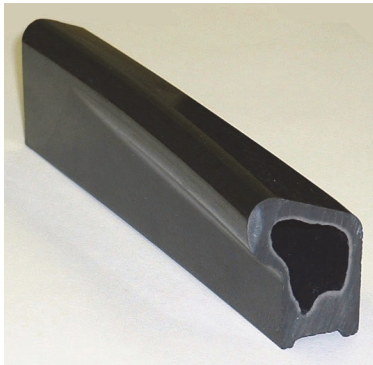
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APPLICATION ENGINEERING
GAS INJECTION SYSTEMS

PREP³ - the Ultimate Resin Evacuation Method

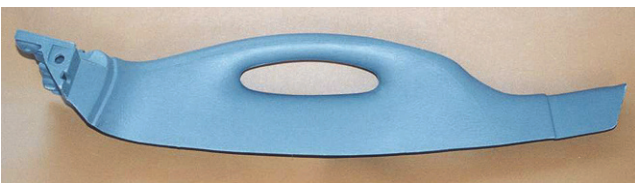
AEGIS' PREP³ Technology is a long practiced resin evacuation method. Previous methods were known in the gas injection molding community as overfills, overflows, spillovers, Backspill™, resin expulsion and a variety of other generic names. A few of the methods of evacuating resin were patented, but nearly all were ineffective, unreliable, or very problematic for achieving consistent results. PREP³ is a resin evacuation method that is simple to implement, has a wider manufacturing window than *any* resin evacuation method, and has no patent restrictions, real or imagined.

PREP³
Resin Evacuation Technology



The first implementation of PREP³: The first implementation of the PREP³ resin evacuation process was in July 2000 for a gas molded handle for the appliance industry. The requirements were for a black, high gloss surface range handle molded in **50% glass reinforced polyester**. A cross section of the cut production handle is shown to the left. This was a particularly challenging application and required an oil heated mold; the process was successful for achieving the Class A surface and desired remaining wall thickness. Method: Gas assisted injection molding, PREP³, single gas injection point, single PREP³ evacuation point.

PREP³ is the ideal process for large cross section tubular products that exhibit flow lines when using a short-shot gas injection process, when a large flow channel must extend to the end-of-fill, or when the normal low-pressure short-shot gas assist process prevents achieving a Class A surface appearance. PREP³ has been implemented in automotive, appliance and recreational vehicle components in reinforced resins with talc, calcium carbonate and glass reinforcement as high as 50%



PREP³ does *not* require a "patent license" from *anyone*. PREP³ *does* require specific, proper implementation, with the gas injection point, evacuation provision in the mold and resin-gas-evacuation timing sequence to be correctly implemented. PREP³ is suitable for multiple cavity molds, with cavity isolation as has been taught by AEGIS to gas molders for years. With our consultation, design support and

training, PREP³ provides the most efficient, repeatable gas assist resin evacuation methodology in the industry.

Achieve Class A Surfaces in Large Cross Sections and with Reinforced Resins
Every Cycle with PREP³ Gas Assisted Injection Molding

Gas Assist Product, Tool and Process Development
Gas Injectors, Resin Shutoff Valves, Gas Molding Accessories
Turnkey Gas Assist Processing Systems
Gas Assist System Repairs and System Rebuilds

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