

FAQs – Sintered Vent

Where can I find details regarding recommended pore size versus resin?

A: Please refer to the DME Mold Components catalog as we give application recommendations there. Please be aware that these are general suggested guidelines, and actual performance can vary with the specific grade and viscosity of the resin intended to be processed. If you need more specific information, or need to know at what pore size will a particular resin type or grade will pass through, please contact your resin supplier for information. Be prepared to specify the desired pore size that you are considering, as well as provide estimated processing parameters including estimated peak injection pressure.

Where can I find information regarding recommended cleaning agents for cleaning my DME Sintered Vents?

A: Cleaning agents will depend on the type of plastic being molded. We ask that you contact your resin manufacturer or supplier and ask for recommended cleaning agent that is appropriate for removing the type of plastic that you are molding from the sintered vent pore size. When cleaning, it is recommended to use the appropriate cleaning agent with an ultrasonic bath.

Where is the best place to place a DME Sintered Vent in my mold?

A: Sintered Vents are usually installed in the mold location that is last to fill. This is typically the point at which the plastic can burn due to trapped gas associated with high temperature and pressures.

Where can I find recommended installation specifications for my DME Sintered Vent?

A: Recommended installation and tolerances are given in the DME Mold Components Catalog. The vent is tapped into the installation hole with a plastic or wooden hammer. Use of a metal hammer or other hard tool is not recommended due to chipping or clogging that might occur in the vent.

I cannot fit a DME Sintered Vent in my desired vent location. Can you recommend alternatives to the DME Sintered Vent in such situations?

A: The alternative to the DME Sintered Vent is a custom vent installed by the mold maker. Mold makers can create a vent by grinding a flat on an ejector pin, or use a hand grinder to create a groove or slit vent along the parting line of the mold. The disadvantages of these methods are: Non-uniformity of the vents and the vents cannot be easily replaced if they are damaged, the vents must be instead remachined. The use of standard vents is a much more cost-effective method of venting a mold.

What are possible symptoms of insufficient venting in my mold?

A: Symptoms of insufficient venting in a plastic injection mold may include burning of a plastic part or a short shot. Symptoms in die casting typically present themselves as defective parts due to trapped air or gas.

Can DME Sintered Vents be used with Die Casting?

A: We do not recommend using DME Sintered Vents in die casting operations, because once clogged with metal, the vents cannot be cleaned. For Die Casting, we recommend that DME Chill Vents be used instead.

I have downloaded CAD files from the DME Website for a DME Sintered Vent, but I do not see the pores on the CAD part. Can I obtain a CAD file that shows the full geometry?

A: Not at this time.

I would like to mold Urethane, and I would like to use a DME Sintered Vent in the mold. What DME Sintered Vent should I use?

A: Urethane tends to be very sticky and could potentially clog sintered vent pores very quickly. Some customers have had success using sintered vents with molding Urethane, and some other customers have not had success molding Urethane using sintered vents. Furthermore, not all Urethanes are made equal and some grades could clog a sintered vent faster than other grades. As a general rule we do not recommend using sintered vents with molding Urethane due to the gases and residues emitted. Instead we recommend that you machine a custom vent in the mold at the end of the flow front.

I am molding Urethane, and I have trapped air bubbles mid-way in my molded part. Will Sintered Vents or Air Poppets assist me in removing those air bubbles?

A: First, we refer you to the question immediately prior to this question here. However, with respect to Urethane molding, Urethane is very compressible and it is possible to trap air in the Urethane resin melt back in the injection machine barrel. Through we cannot guarantee that the following suggestions will solve your molding issue, but you might consider not using suck-back during Urethane molding as this can introduce air into the Urethane melt. Another option is to adjust the back pressure to try to push any encapsulated air back up through the hopper as you auger the pellets. Again we repeat, we make no guarantee that the above suggestions will solve your molding issue.

Air that is encapsulated in the Urethane melt can be compressed by means of the high pressure used to inject the melt into the part cavity, effectively making the air bubbles almost disappear. Once the part begins to cool and the pressure is relieved, the air bubbles can re-appear.

Sintered vents are used to eliminate gassing/burn marks as a result of trapped air at the flow front. This could occur at a weld line. However trapped air mid-stream in a Urethane melt would not be removed by the Sintered vent. If you are attempting to remove trapped gas at the end of the flow front, we recommend you consider machining a custom vent into your mold at that location.

Please note that DME Air Poppets are not designed to vent gas from a part cavity. DME Air Poppets apply a small amount of air in the part ejection cycle to assist in part ejection from the core or cavity. Therefore DME Air Poppets are not recommended for removing air bubbles found mid-stream in a molded part.

For additional information regarding DME Sintered Vents, please refer to the DME Mold Components Catalog. For other concerns regarding DME Sintered Vents, please contact us by visiting our website at <http://www.dme.net>, or contact your regional DME sales representative. In the USA or Canada only, please contact DME Customer Service by visiting our website at <http://www.dme.net>, or call 800-626-6653 (U.S.) or 800-387-6000 (Canada).