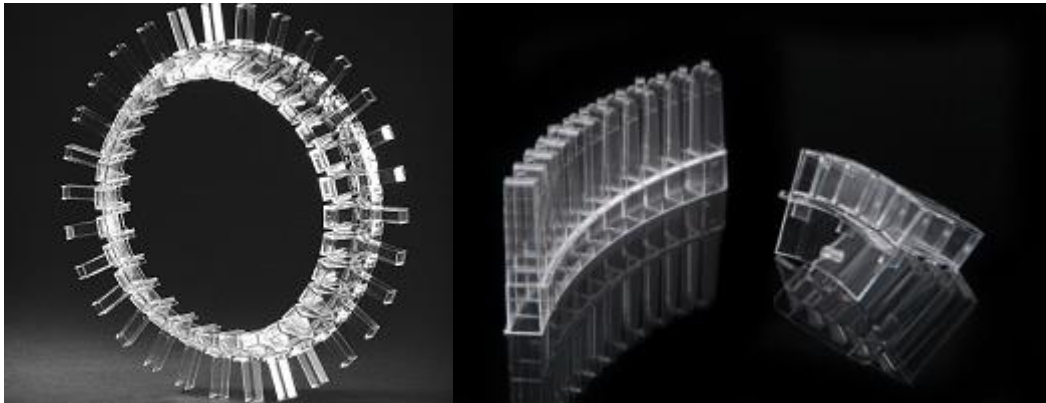


# LUCITE® DIAKON

## Case Study High Optical PMMA



**Shorten your time- to- market with high optical purity PMMA beads for Medical Diagnostic Devices.**

Polymer: Diakon® PMMA beads

Application: medical diagnostic device cuvettes (optical applications: optical lenses, lighting diffusers/LED collimators)

Processing: Injection moulding

### **Key Benefits of PMMA beads vs. granular:**

- Extreme optical purity
- High UV transparency
- Ultra-low contamination
- Excellent melt flow for thin or intricate mouldings
- Responsive technical support

### **The Challenge**

Do you need strong and efficient technical support to rapidly develop new PMMA medical diagnostic devices?

Do you have demanding requirements for PMMA such as high optical purity, low contamination level or even specific rheology profile?

### **The Solution**

Combining a unique PMMA bead grade with a responsive technical support, Lucite International helps you reduce your time- to- market and design highly performing optical parts for medical diagnostic applications.

Increase the optical purity for a maximum light transmission: +0.5% vs. granular (Fig. 1) Utilizing an enclosed suspension polymerization process, Lucite synthesizes ultra-pure PMMA beads leading to

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high optical purity compared to granular grades (see Fig.1).

High UV transparency: Transparency in the UV region is a key requirement for medical diagnostic devices such as cuvettes. The influence of the container on the absorption measured is as low as possible with Diakon PMMA beads (see Fig 2).

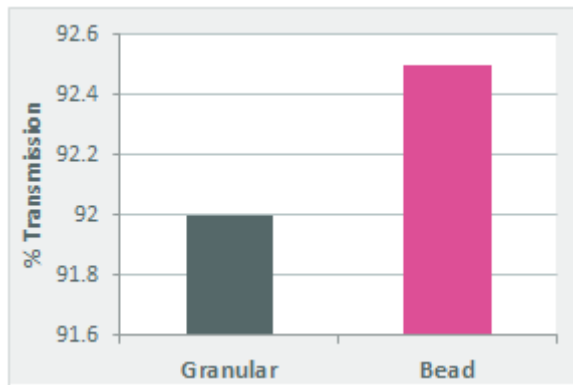


Fig. 1: +0.5% on light transmission for PMMA beads vs. granular.

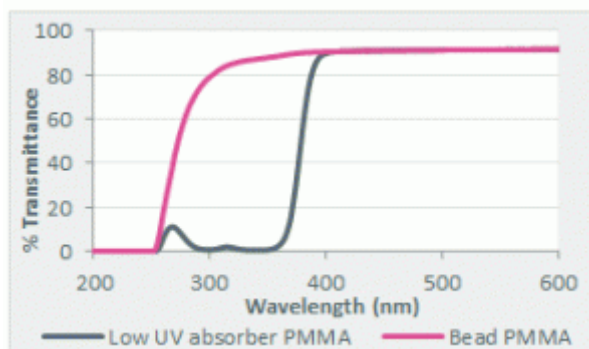


Fig. 2: PMMA beads show maximum transparency across a broad range of the UV spectrum.

### Reduce your contamination level for demanding medical applications

The enclosed suspension polymerization process leads to a very low contamination level of Diakon® beads – allows optimal production of cuvettes which do not interfere with the instrument measurement process.

A range of available grades allows selection of a particular melt flow, in addition to the option of specific tailor-made viscosity grades – developed to fit your requirement.

### Benefit from a responsive technical support with Lucite International:

- Faster product approval to reduce your time to market
- Solve rapidly your technical production line issues
- Local representation

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