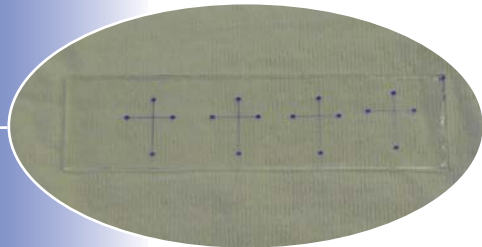
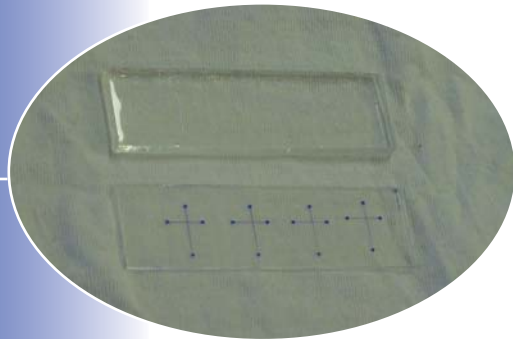


Rapid Prototyping of Molded Plastic Devices Using PDMS

APPLICATIONS
NOTE #301



*Glass Molds Fabricated
Using the SF-100*



*PDMS Molded Part and
Glass Mold Master*



*Demonstration of
PDMS Flexibility*

Overview:

Demonstration of a microfluidic circuit fabricated out of low cost polydimethylsilane (PDMS) polymer.

Process Flow:

1. Start with a rigid substrate, such as glass, for the mold packaging.
2. Produce the mold by patterning a hard substrate using a standard photoresist process on the SF-100.
3. Pour liquid plastic solution of polydimethylsilane (PDMS) over the mold.
4. Allow the PDMS to cure and solidify.
5. Separate the PDMS micro device from the micro mold. Microchannels will now be present in the PDMS material.
6. Bond a cover on top of the micro channels and add micro fittings for ease of integration. This final step is optional and determined based on the user's specific application.



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