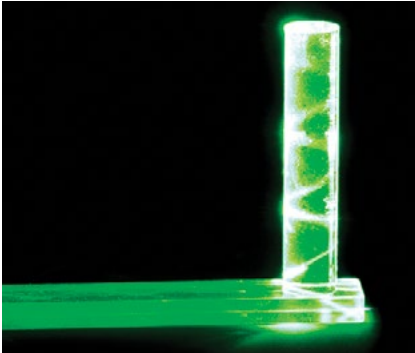


UL 94 Flame bar



This shape is required for UL 94 flame classification testing. In addition, this particular mold is highly polished so it has a good optical surface. The polished surface and long uniform length of this bar also make it suitable for demonstrating Total Internal Reflection. You can see the light internally reflected in low ambient light by shining a laser pointer in the polished end and varying the angle.

Another interesting demonstration is to hold a light or laser pointer against the end while bending the bar; this forms a basic light guide to change the direction of the light. Light will follow the bar until it is bent sharply enough that the critical angle is reached, at which point light will escape the bend.



Finally, if a laser is placed at the end of the bar, and a light pipe cylinder is stood upright and pressed against it, light can be extracted along the cylinder. This light extraction is useful in some designs and can also be accomplished by roughening the portion of the mold where the light extraction is desired.

Points to note:

- SILASTIC™ MS-1002 Moldable Silicone has a UL 94 HB at 1 mm and V-1 at 8 mm rating.
- Hold part by one end and note the rigidity along the thickness.
- This part can be used to demonstrate long, flexible light guides (125 mm).
- Light can be bent and directed using a laser on one end.



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