

compatible with a coating that is to be applied to an internal surface of the IOL delivery cartridge.

In view of the above, it would be desirable to provide an IOL cartridge and coating combination where the coating is improved relative to conventional coatings and the material that forms the cartridge is compatible with the improved coating while still exhibiting desirable physical properties.

Summary of the Invention

Accordingly, ~~the present invention is directed to an aspect, there is provided an~~ IOL delivery device. The device includes a delivery cartridge having a body portion and a nozzle, the body portion and nozzle including an internal surface defining a lumen extending along the body portion and the nozzle. ~~At least t~~The internal surface is formed of polymeric material that is either a polyurethane material or a non-olefinic polymeric material having a heterogeneous backbone. A coating is disposed over the internal surface and the coating is formed of a polyurethane material and a hydrophilic material.

The polyurethane material of the coating forms a cross-linked or linear matrix and the hydrophilic material is dispersed throughout the matrix. It is preferable for the coating to be a single layer disposed directly over the internal surface of the cartridge without any coating layers over the single layer, although other configuration may be possible.

It is also preferred, although not required unless otherwise stated, for the cartridge and the internal surface to be formed of a singular polymeric material. The material of the internal surface typically exhibits a flexural modulus that is at least 200 MPa, more typically at least 1200 MPa and even more typically at least 2000 MPa. Further, the material of the internal surface typically exhibits a hardness of at least 50D, more typically at least 75D and even possibly at least 90D.

Brief Description of the Drawing

Fig. 1 is a drawing of an exemplary IOL delivery device in accordance with an aspect of the present invention.

Fig. 2 is a sectional view of a portion of the IOL delivery device of Fig. 1.