ADVANCED FUNCTIONAL POLYMERS FOR MEDICAL APPLICATIONS

Ideal biomedical materials possess biological properties needed to interact with cellular environments, and physicochemical properties required for a desired application. SPECIFIC POLYMERS proposes a wide range of polymers designed specifically for use in biomedical applications. Download all our catalogs at: www.specificpolymers.fr

### Bioresorbable or biocompatible polymers

Bioresorbable polymers can be tailored for controlled degradation through numerous functional groups. They can be used for sutures, drug delivery and tissue engineering.

<table>
<thead>
<tr>
<th>EPOXIDES</th>
<th>LACTIDES</th>
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<tbody>
<tr>
<td>Polysorbid diglycidyl ether: <strong>Bisphenol A substitute</strong>¹</td>
<td>PMMA-co-PLA (diblock)</td>
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<td><img src="image" alt="EPOXIDES Diagram" /></td>
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<td>Ref: SP-9S-5-001</td>
<td>Ref: SP-4P-0-004</td>
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<th>ACRYLICS</th>
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### Diblock copolymers for drug delivery

Nowadays, targeted and controlled release of drugs is subjected to many researches. Polymeric materials intended for this application need to combine different properties. Amphiphilic and double hydrophilic copolymers enable the formation of micelles for drug entrapment, whereas stimuli-responsive polymers permit a controlled delivery of drug³.

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<th>DIBLOCK AMPHIPHILIC COPOLYMERS</th>
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<td>PAA-co-PLA⁴</td>
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¹ Bisphenol A substitute
² Polydiisopropyl fumarate
³ Poly(alpha-acetoxy ethyl acrylate)
⁴ PAA-co-PLA
⁵ PEO-co-PDMS
Dental and implant materials

Dental and implant materials need to possess excellent mechanical and adhesion performances associated with biostability. Building blocks and polymers containing phosphonic acid functions are especially dedicated to this application, because of their ability in binding to bones and various calcium phosphates. 

ACRYLICS

MAPC1 Acid

MMA-co-MAPC1 Acid

STYRENICS

Styrene-co-Styphos Acid

ALLYLICS

Allyl Phosphonic Acid

ALKYL CARBOXYLIC ACIDS

Carboxyl C11 Phosphonic Acid

POLYETHYLENE GLYCOLS

PEO Phosphonic Acid

Polymers for ophthalmology

Polymers and copolymers used in ophthalmologic applications, especially for producing contact lenses, combine specific features: hydrophilicity, oxygen permeability and abilities in forming hydrogel structures via functional groups.
HYDROXYETHYL METHACRYLATE "HEMA" BASED POLYMERS

HEMA Homopolymer

Ref : SP-4P-3-004

MMA-co-HEMA

Ref : SP-4P-3-003

OTHER METHACRYLIC FUNCTIONAL COPOLYMERS

MMA-co-IEM

Ref : SP-4P-4-002

MMA-co-Glycerol carbonate methacrylate

Ref : SP-4P-0-002

References


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