

## PURASORB® PDLG 5505G

### Product specification data sheet

Rev. No. 1 / May 2019

**Description** PURASORB PDLG 5505G is a GMP grade copolymer of DL-lactide and Glycolide in a 55/45 molar ratio and with an inherent viscosity midpoint of 0.5 dl/g. It is supplied in the form of white to light tan granules. PURASORB PDLG 5505G is primarily used for drug delivery applications and is suitable for all commonly used formulation techniques.

<b>Chemical composition</b>	55/45 DL-lactide/Glycolide copolymer
<b>Item</b>	1840431
<b>Molecular formula</b>	$[(C_6H_8O_4)_x(C_4H_4O_4)_y]_n$
<b>Chemical name</b>	3,6-dimethyl-1,4-dioxane-2,5-dione, polymer with 1,4-dioxane-2,5-dione
<b>CAS Registry number</b>	26780-50-7

Test	Method	Specification
Appearance	Visual test	White to light tan granules
Identity	FTIR spectroscopy	Conforms to reference
Monomer ratio, DL	NMR spectroscopy	52 - 58 mol %
Monomer ratio, G	NMR spectroscopy	42 - 48 mol %
Inherent viscosity	Viscometry Chloroform, 25 °C, c = 0.5 g/dl	0.4 - 0.6 dl/g
Specific rotation	Polarimetry Chloroform, 20 °C	(-2) - (+2) °
Tg	DSC, 10°C/min	42 - 52 °C
Mw	GPC, Chloroform	For information purpose only
Mn	GPC, Chloroform	For information purpose only
Mw/Mn	GPC, Chloroform	For information purpose only
Water	Coulometric titration	max. 0.5 %
Tin	ICP	max. 50 ppm
Residual solvent, total	GC, headspace	max. 0.5 %
Residual solvent, acetone	GC, headspace	max. 5000 ppm
Residual solvent, toluene	GC, headspace	max. 890 ppm

Test	Method	Specification
Residual monomer, total	GC	max. 0.5 %
Residual monomer, DL-lactide	GC	max. 0.5 %
Residual monomer, Glycolide	GC	max. 0.5 %
Elemental impurities	USP method 232	max. 10 ppm
Acid number	Titration	max. 3.5 mg KOH/g
Total microbial count	TAMC	max. 2 x 10 <sup>3</sup> CFU/g
Yeast and moulds	TYMC	max. 2 x 10 <sup>2</sup> CFU/g
Bacterial endotoxins	USP method 85	max. 6 EU/g

**Packaging** PURASORB PDLG 5505G can be supplied in 1 kg packages. Our standardized packaging consists out of four protective layers, an inner layer of clean room grade PE bag, an outer bag of aluminum coated polyester-PE laminate, inserted in the additional bag of PE for extra protection and shipped in sealed PE containers.

**Storage & Handling** When stored in the original packaging at low temperatures (-15°C), PURASORB PDLG 5505G keeps its initial properties for at least four years. (retest date)

Stability studies indicate that, when stored in the original packaging at room temperature, PURASORB PDLG 5505G keeps its initial properties for at least one year.

Please refer to our current stability statement for most up to date information on storage stability.

Allow the material to reach room temperature before opening the packaging. After opening the original packaging PURASORB PDLG 5505G is best stored in an inert atmosphere and at low temperatures (-15°C).