

**TekLeu® PEO****Polyethylene Oxide**

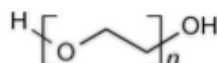
Technical Information

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**Polyethylene Oxide (TekLeu® PEO)**

TekLeu® PEO Polyethylene oxide (PEO), a nonionic hydrophilic polymer, is one of the most widely used polymers for extending the drug release. .

**Molecule Structure**

CAS# 25322-68-3

**Physical properties**

Standard	CP2020; USP; EP	
White to off-white, free-flowing powder; with a slight ammonia odor. Soluble in water and many common organic solvents, such as acetonitrile, chloroform, dichloromethane, insoluble in aliphatic hydrocarbons, ethylene glycol and ethanol.		
Libertia Code	Labeled average molecular weight	Dynamic viscosity (mPa·s) Polyethylene Oxide(g)/ (Water+Isopropyl alcohol) (ml)
PEO-10	100,000	12~50(mPa·s)30g/(570+125)ml
PEO-20	200,000	65~115(mPa·s)30g/(570+125)
PEO-40	400,000	2250~4500(mPa·s) (5% aqueous solution)
PEO-60	600,000	4500~8800(mPa·s) (5% aqueous solution)
PEO-90	900,000	8800~17600(mPa·s) (5% aqueous solution)
PEO-100	1,000,000	400~800(mPa·s) 2% (aqueous solution)
PEO-200	2,000,000	2000~4000(mPa·s)12g/ (588+ 125)ml
PEO-400	4,000,000	1650~5500 1%( aqueous solution)ml
PEO-500	5,000,000	5500~7500(mPa·s)6g/(594+125)ml
PEO-700	7,000,000	7500~10 000(mPa·s)6g/(594+125)ml

**Applications**

Application	Dosage	Example
Sustained release skeleton material	10-30%	Nifedipine Controlled-release Tablets Metoprolol Succinate Sustained-release Tablets Glipizide Extended-release Tablets Pregabalin Sustained-release Tablets Sitagliptin Phosphate and Metformin Hydrochloride Sustained-release Tablets Metformin Hydrochloride Sustained-release Tablets Trimetazidine Dihydrochloride Modified Release Tablets

## **Features & Benefits**

- Low toxicity when applied to various drug delivery routes;
- Hydrate quickly to form a gel when applied to hydrophilic matrix tablets;
- Wide range of molecular weights makes the formulation more flexible;
- It have excellent lubricity when wet, and this property has been used to improve medical device coatings;
- Polyethylene Oxide with high molecular weight delays drug release by swelling the hydrophilic matrix;

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## **Storage & Handling**

Store in a dry and tightly sealed container;  
Packing: 1kg Aluminum bag/ 5kg drum/ 20kg drum;

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## **Safety**

Safety Data Sheet has been compiled for Polyethylene Oxide (TekLeu® PEO) that contains up-to-date information on questions relevant to safety.

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### **Note:**

The data are controlled at regular intervals as part of our quality assurance program. Neither these data nor the properties of product specimens shall imply any legally binding guarantee of certain properties or of fitness for a specific purpose. No ability of ours can be derived therefrom.