

TECHNICAL DATA SHEET

HPMC – E15

PRODUCT DESCRIPTION:

HPMC E15 is a low-to-medium viscosity, water-soluble, non-ionic cellulose ether derived from natural cellulose. White to off white powder, free flowing. It is commonly used in oral solid dosage forms, particularly as a film coating agent, binder, and stabilizer. HPMC E15 provides stronger film-forming ability and enhanced binding compared to lower viscosity grades like E5, while maintaining good processability and solubility.

PROPERTIES:

Produce strong flexible film forming ability - Forms smooth, uniform, and flexible films on tablets or granules.

Emulsion stabilization prevent separation in cream and lotion.

Supports aqueous and solvent-based formulations.

Support with a wide range of API formulations.

Solubility and Bioavailability Enhancement.

APPLICATION:

Tablet Film Coating - Offers moisture protection, taste masking, and controlled color release.

Tablet binder is used as a binder to improve granule cohesion.

Suspending and Thickening Agent - Used in oral liquids, topical gels.

Use in ophthalmic solutions to improve texture, viscosity, and suspension.

TECHNICAL SPECIFICATION

TEST	RESULT
Appearance	White Powder
Viscosity m.Pa.s	15.4
pH Value	7.2
Water insoluble matter %	≤0.5
Loss on drying (LOD) %	≤5.0
Residue on ignition (ROI) %	≤1.5
Heavy metal, PPM	≤ 10
Arsenic %	≤ 0.0002
Aerobe, cfu	1000
Molds and test, cfu	100
Escherichia coli (E. coli)	None
Methoxy %	28.1
Hydropropoxy %	7.4
Gelatin Temp (°C)	≥ 50°C

ADVANTAGES

Good balance between film strength and processability.

Non-reactive, suitable for wide API compatibility.

Fast hydration, easy to prepare in coating suspensions.

Used for aqueous or solvent-based coatings.

DOSAGES

Recommended dosages of E5 used in film coating, solid dispersant, film forming agent gel, ointment emulsifier, suspending agent, stabilizer for film coating use in amount of 2% -10%

The dosages of tablet adhesive are 1% - 5%

STORAGE

It should be stored in dry and cool place in its original packing.

To avoid directly contact with sunlight, high temperature and humidity storage may reduce this period.

SHELF LIFE:

Storage time should not exceed 5 years from receipt of delivery.

PACKING

HPMC – E15 is packed in paper plastic barrel with a net weight of 25 kg per barrel.

