

Ethyl Cellulose(EC)

CAS NO.:9004-57-3

Ethylcellulose is a tasteless, free-flowing, white to light tan-colored powder.ethyl cellulose is a binder, film former, and thickener. It is used in suntan gels, creams, and lotions. This is the ethyl ether of cellulose.Ethyl Cellulose EC is soluble in a wide range of organic solvents. Typically, Ethyl Cellulose EC is used as a non-swellable, insoluble component in matrix or coating systems.

Ethyl Cellulose EC can be used to coat one or more active ingredients of a tablet to prevent them from reacting with other materials or with one another. It can prevent discoloration of easily oxidizable substances such as ascorbic acid, allowing granulations for easily compressed tablets and other dosage forms.EC can be used on its own or in combination with water-soluble components to prepare sustained release film coatings that are frequently used for the coating of micro-particles, pellets and tablets.

Ethyl cellulose can't dissolve in water, but soluble in many organic solvents, so EC used in tablets,granules of its adhesive agent. It can increase the hardness of tablets to reduce friability tablets, it can be used as film-forming agent to improve the appearance of tablets, isolated taste, to avoid the failure of water-sensitive drugs to prevent the influx of metamorphic change agents, promoting the safe storage of tablets, also can be used as reinforcing material for sustained release tablets.

Items	K grade	N grade
Ethoxy (WT%)	45.5 – 46.8	47.5 – 49.5
Viscosity mpa.s 5% solu. 20 *c	4, 5, 7, 10, 20, 50, 70, 100, 150, 200, 300	
Loss on drying (%)	≤ 3.0	
Chloride (%)	≤ 0.1	
Residue on ignition (%)	≤ 0.4	
Heavy metals ppm	≤ 20	
Arsenic ppm	≤ 3	

EC can be dissolved in various organic solvents,Common solvent (volume ratio):

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1) Toluene:Ethanol = 4:1

2) Ethanol

3) Acetone:Isopropanol = 65:35

4) Toluene:Isopropanol = 4:1

5) Methyl Acetate:Methanol = 85:15



Grade Name	Viscosity
EC N4	3.2-4.8
EC N7	5.6-8.4
EC N10	8-12
EC N20	16-24
EC N22	17.6-26.4
EC N50	40-60
EC N100	80-120
EC N200	160-240
EC N300	240-360

Applications

Ethyl Cellulose is multi-functional resin. It works as a binder, thickener, rheology modifier, film former, and water barrier in many applications as detailed below:

Adhesives: Ethyl Cellulose is broadly used in hot melts and other solvent-based adhesives for its excellent thermoplasticity and green strength. It is soluble in hot polymers, plasticizers, and oils.

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Coatings: Ethyl Cellulose provides waterproofing, toughness, flexibility and high gloss to paints and coatings. It can also be used in some specialty coatings such as in food contact paper, fluorescent lighting, roofing, enameling, lacquers, varnishes, and marine coatings.

Ceramics: Ethyl Cellulose is highly utilized in ceramics made for electronic applications such as multi-layer ceramic capacitors . It works as a binder and rheology modifier. It also provides green strength and burns out without residue.

Printing Inks: Ethyl Cellulose is used in solvent-based ink systems such as gravure, flexographic and screen printing inks. It is organosoluble and highly compatible with plasticizers and polymers. It provides improved rheology and binding properties which helps the formation of high strength and resistance films.

Packing:

12.5Kg /Fiber Drum

20kg/paper bags