Applications

- Enteric coating is used for resistance to gastric fluid.
- Film coating is used for resistance to environmental effect like humidity, temperature, light, etc.
- Provides product identity.
- Imparts cosmetic elegance to product appearance.
- Reduces the risk of incompatibility.
- Improves mechanical strength of product.
- Suitable for matrix structure.

Benefit

- Option of solvent, hydroalcoholic and aqueous vehicle.
- Less quality required so reducing volume of coating solution thus shorting production time.
- Stability over a broad temperature range.
- Exhibits excellent colour value.
- Cost effective.
- Easy to formulate.

Toxicity

- As Metcoat range is a high molecular weight polymer, it can not be absorbed by body. Thus, it is safe for human consumption.
- Test for toxicological tolerance shows that it does not have any pronounced or physiological action.

ShelfLife

- Powder form: Five years from date of manufacturing in intact condition.
- Liquid form: Two year from date of manufacturing in intact condition.

Packing

- Powder form: 5kg and 20kg net in corrugated with polyethylene liner.
- Liquid form: 60kg plastic drum.

Storage

- Powder: Store at dry place and below 25°C.
- Liquid : Store at dry place and between 5°C to 35°C. Do not freeze.

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Methacrylic
Acid Copolymers (METCOAT)

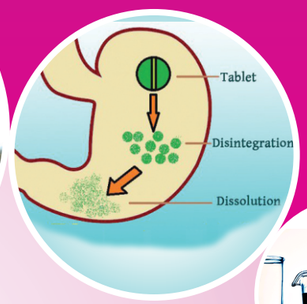
Enteric coating

Sustained Release

Transdermal Patch

Encapsulation

- Metcoat L-30D Liquid
- Metcoat L-100 Powder
- Metcoat S-100 Powder
- Metcoat L-100D Powder
- Metcoat E-100 Powder



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the new generation polymer technologist

Metcoat range is transparent or colored film former coating polymers based on methacrylic acid co-polymers type A, B & C which confirms to USP/NF, EP & JP specification. The range of Metcoat is useful for film coating, enteric coating, sustained release coating and matrix forming, transdermal therapeutic system etc.

Application	Grade*	Availability	Solvents	Use Level** (calculation on dry basis)	Solubility	Pharmacopoeial Monographs	Advantages
Enteric Coating (Drug delivery in Jejunum)	Metcoat L100 Metcoat L12.5	Powder 12.5% Clear solution in isopropanol	Alcohol Acetone Alcohol+ Water (3%)	4.0 - 5.0%	Soluble in intestinal fluid from pH 6.0 and above Insoluble in gastric fluid	USP/NF : Methacrylic Acid Copolymer, Type A - NF Ph.Eur : Methacrylic Acid - Methyl Methacrylate Copolymer (1:1)	Organic / solvent coating system Less Quantity requirement
Enteric Coating (Drug delivery in duodenum)	Metcoat L100D Metcoat L30D	Powder 30% Milky aqueous dispersion	Water Water + Alcohol Alcohol	4.0 - 5.0%	Soluble in intestinal fluid from pH 5.5 and above Insoluble in gastric fluid	USP/NF : Methacrylic Acid Copolymer, Type C - NF Ph.Eur : Methacrylic Acid - Ethyl acrylate Copolymer (1:1) Type A	Aqueous & semi aqueous coating system Less quantity requirement
Sustained release **Enteric coating** (Drug delivery in Colon)	Metcoat S100 Metcoat S12.5 Metcoat E 100	Powder 12.5% Clear solution in isopropanol	Alcohol Acetone Alcohol + Water	10.0 - 20.0%	Soluble in intestinal fluid from pH 7.0 and above Insoluble in gastric fluid	USP/NF : Methacrylic Acid Copolymer, Type B - NF Ph.Eur : Methacrylic Acid - Methyl Methacrylate Copolymer (1:2)	pH dependent polymer Mixing possibility with Metcoat - L100

- Plasticizer needed to improve film elasiticity where the films are brittle, Recommended Plasticizers - Triethyl Citrate, Castor Oil, Propylene glycol, Polyethylene Glycol, Di butyl phtalate, Triacetin, Dibutyl, sebacate etc.
- Depends upon facilities available at customer premises like type of product, batch size, equipments etc.