The Benchmark of Quality

Acid Resistant
Hypromellose Capsules

EMBO CAPS® AP

embo caps

EMBOCAPS® AP
Acid Protection

EMBOCAPS®AP protects its dosage from acid by delaying the release of the capsule in the stomach, and safely delivering it to the intestinal tract.

EMBOCAPS®AP is comprised of Hypromellose and a water soluble carbohydrate which has acid protective characteristics in the stomach, and fast dissolving characteristics in the intestinal environment.

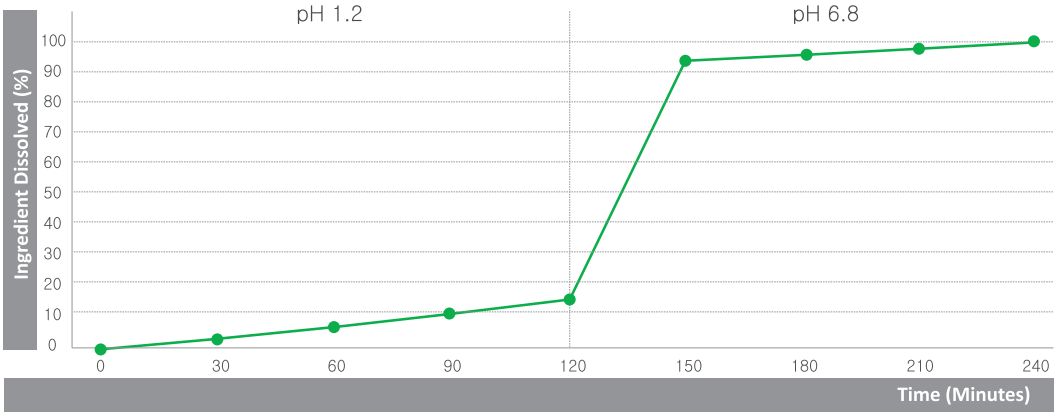
EMBOCAPS®AP is suitable for a variety of dosages and ingredients that require delayed release of the capsule for optimum dosage delivery. In addition, EMBOCAPS® AP has a low moisture content at 3~7%, making it ideal for probiotic and other hygroscopic fill applications. Since no additional processes (e.g. banding, coating) are required for the acid protection characteristics, EMBOCAPS® AP is a cost effective, single step, delayed release technology.

DISSOLUTION PROFILE

1. **Fill (Dosage) Information**
   Acetaminophen (20%), Lactose (70%), Croscarmellose Sodium (10%) Mixture Manually filled
2. **Test Medium and Conditions**

ITEM		CONDITION
METHOD		USP <711> Dissolution
APPARATUS / SPEED		Paddle / 50rpm
TEMPERATURE		37.0ºC±0.5ºC
TEST MEDIUM	pH 1.2 SOLUTION	Place 250ml of 0.2M Potassium Chloride (KCl) solution in a 1000ml flask, add 425ml of 0.2M Hydrochloric acid(HCl) solution, then add water to volume, adjusting pH to 1.2
	pH 6.8 SOLUTION	Place 250ml of 0.2M Potassium Phosphate monobasic (KH2PO4) solution in a 1000ml flask, add 112ml of 0.2M Sodium hydroxide(NaOH) solution, then add water to volume, adjusting pH to 6.8
PROCEDURE		Comparison test was conducted according to the dissolution test method for Acetaminophen Capsules, USP.

3. Result



DISINTEGRATION PROFILE

ITEM		CONDITION	RESULT
METHOD		USP 701 Disintegration	-
TEMPERATURE		37ºC±2ºC	-
TEST MEDIUM	WATER	Purified Water	3a-5b min
	pH 1.2 SOLUTION	Place 250ml of 0.2M Potassium chloride (KCl) solution in a 1000ml flask, add 425ml of 0.2M Hydrochloric acid (HCl) solution, then add water to volume, adjusting pH to 1.2	50a-80c min
	pH 6.8 SOLUTION	Place 250ml of 0.2M Potassium Phosphate monobasic (KH2PO4) solution in a 1000ml flask, add 112ml of 0.2M Sodium hydroxide (NaOH) solution, then add water to volume, adjusting pH to 6.8	3a-5b min

a, The time of the first capsule disintegration.
b, The time of the sixth capsule disintegration
c, The time of the fifth capsule disintegration. The sixth capsule remained without disintegration.

CSI Analitica Research Service

ADVANTAGES

- Cost effective: No need for additional coating or process
- Suitable for powders and liquids
- Perfect capsule to encapsulate probiotics, enzymes and other acid sensitive materials
- Fully customizable: Capsule sizes, colors and printing

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