

PHARMA APPLICATION LEAFLET

#18/05/ 017

Folic Acid, Direct Compression

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Abstract

Folic Acid is a B-complex (B9) vitamin needed by the body to manufacture red blood cells. It is used to treat or prevent folic acid deficiency. Deficiency of vitamin causes certain types of anemia (low red blood cell count).

We have manufacture folic acid tablet with HiCel™SMCC HD 90. It gives very good flow ability and compatibility. We have achieved very good tablet profile.

Ingredient composition

Sr.No.	Name of ingredients	mg/tablet	Contribution (%)
1.	Folic Acid	5.00	3.34
2.	HiCel™SMCC HD 90 (Silicified microcrystalline cellulose)	135.0	90.0
3.	Croscarmellose Sodium	8.0	5.33
4.	Purified Talc	2.0	1.33
Total		150.00	100

Procedure

HiCel™SMCC and croscarmellose sodium mixed for 5-10 mints and add folic acid (API), again mixed for 15-20 minutes. At last add lubricant purified talc and mix the mixture for 5 mints. The powder mixture was ready for direct compression.

Equipment

Sr.No.	Name of equipment	Application	Model/ make
1.	Tablet punching machine	Tablet Manufacturing	10 station, D tooling/ Proton mini press
2.	Weighing Balance	Weighing	MS204S/A01/ Mettler Toledo
3.	Tablet Hardness Tester	Hardness Test	TH 1050 M/ Labindia
4.	Tablet Friability Tester	Friability Test	FT1020 / Labindia
5.	Tablet Disintegration Tester	Disintegration Test	DT 1000 / Labindia
6.	Dissolution Apparatus	Percentage of drug release	DS 8000 / Labindia
7.	UV Spectrophotometer	Absorbance	1800/ Shimadzu

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Dissolution Test Detail

Dissolution Medium: Water, 500 ml. 37±2 °C temperature, at 50 rpm and using with USP dissolution type II apparatus.

Samples withdrawals at required time intervals.

Samples should be diluted if require and filtered. Check absorbance at $\lambda=282.5$ nm.

Tablet Characteristics

Sr.No.	Name of Parameter	Result
1.	Tablet description	Round, flat, white color.
2.	Tablet weight	150 mg
3.	Tablet Hardness	56.70 N
5.	Diameter	8.00 mm
6.	Disintegration time (n=6)	07.00 Sec
7.	Friability	<1%
8.	Dissolution Time (n=6)	45 min

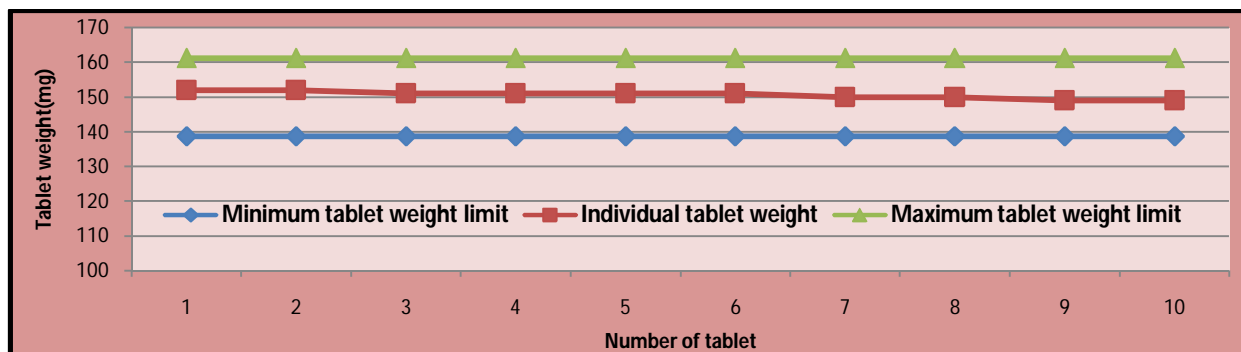


Fig .1. Folic Acid Tablet Weight Uniformity

Summary

- HiCel™SMCC increases flow ability and give good compaction.
- It gives good tablet hardness of tablet and weight uniformity of the tablets.

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