

4282-055

Key Words: Diclofenac Sodium, Good Flowability, Direct Compression
JRS Products: PROSOLV® EASYtab SP

Diclofenac Sodium Direct Compression

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Summary

Diclofenac is a non-steroidal anti-inflammatory drug (NSAID). It is used as a pain-reliever and for its antipyretic (fever-reducing) effects.

Common dosages in tablets are 25 and 50 mg Diclofenac Sodium.

Formulation

	Active content [mg]	mg/tablet	Contribution [%]
Diclofenac Sodium	25.0	25.0	12.5
PROSOLV® EASYtab SP		175.0	87.5
Total		200.0	100.0

Procedure

Blending:

The API was blended with **PROSOLV® EASYtab SP** for 15 minutes. The powder mixture was ready for direct compression.

Equipment:

Tablet Press:	Kilian Pressima, 8 mm punch
Turbula Mixer:	Type T2A
Hardness Tester:	Schleuniger Tablet Tester 6D
Dissolution Tester:	Pharmatest PTW 2
Spectrophotometer:	Cecil CE 1021

Tablet Characteristics

Compaction force:	3.0 kN
Tablet diameter:	8 mm
Tablet weight:	200 mg
Crushing strength:	70 N
Friability:	0.0 %
Disintegration time:	20 s

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Dissolution Test:

Dissolution Medium: 900 mL 0.1 N HCl, 37°C, n=6

Samples were taken after 5, 10, 15, 30, 60, 120 and 180 minutes.

The determination of the Diclofenac was done by UV spectroscopy at $\lambda = 280$ nm.

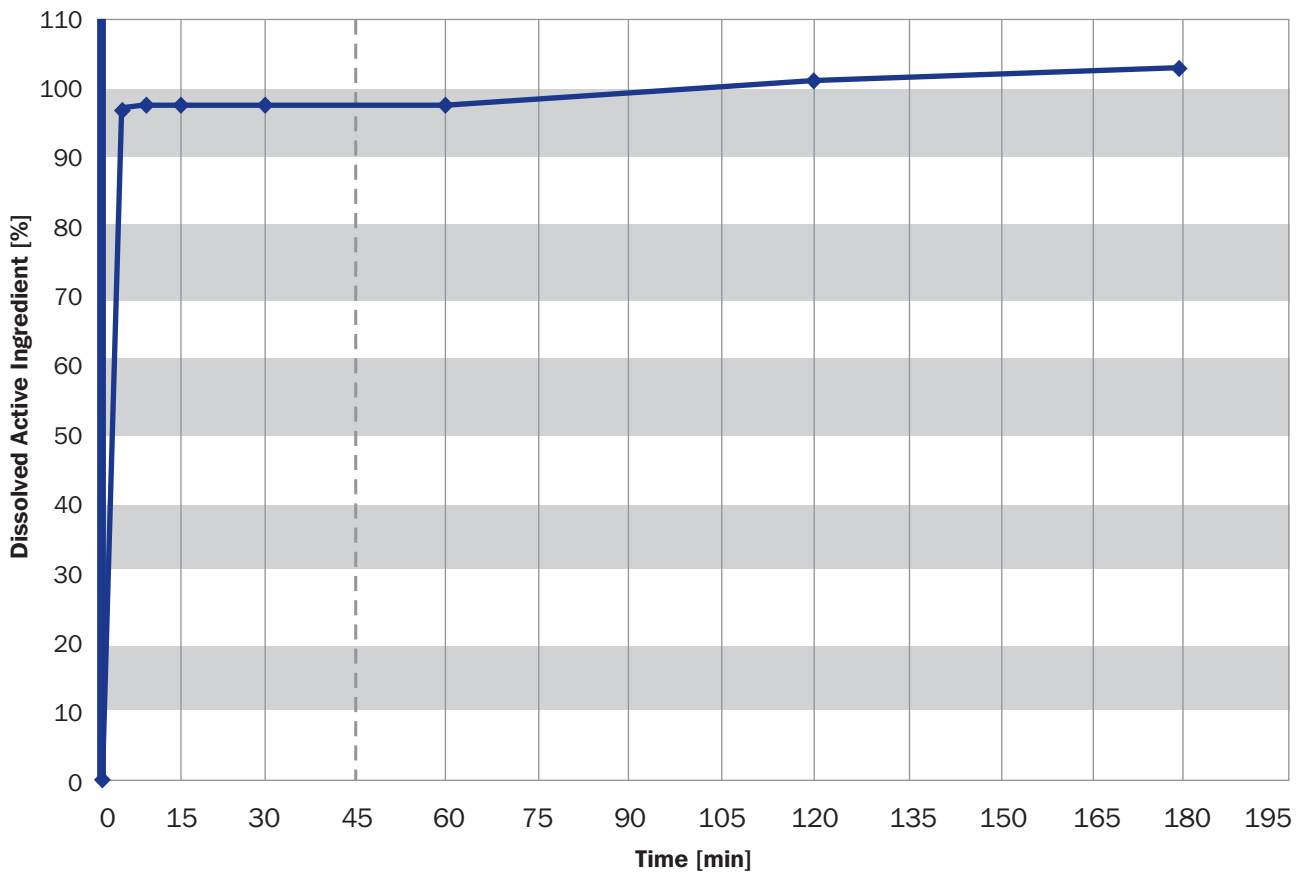


Diagram 1:

Typical dissolution profile of a Diclofenac Sodium tablet. Produced according to the above formulation.

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