

4282-052

Key Words: Atenolol, Medium Water-Solubility, Low Permeability, Direct Compression
JRS Products: PROSOLV® EASYtab SP

Atenolol Direct Compression

Page 1/2

Summary

Atenolol is a well-known cardioselective beta-adrenergic blocker and is used in the treatment of hypertension and acute myocardial infarction.

Common dosages are very broad, ranging from 12.5 to 100 mg. In the following formulation, a 50 mg tablet is described.

Formulation

	Active content [mg]	mg/tablet	Contribution [%]
Atenolol	50.0	50.0	25.0
PROSOLV® EASYtab SP		150.0	75.0
Total		200.0	100.0

Procedure

Blending:

The API was blended with **PROSOLV® EASYtab SP** for 10 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:	30 s

4282-052

Key Words: Atenolol, Medium Water-Solubility,
Low Permeability,
Direct Compression
JRS Products: PROSOLV® EASYtab SP

Atenolol Direct Compression

Page 2/2

Dissolution Test:

Dissolution Medium: 900 mL 0.1 N HCl, 37°C, n=6
Samples were taken after 5, 10, 15, 30, 60, 90, 120 and 180 minutes. The sample volume was 3 mL.
The determination of the active ingredient was done by UV spectroscopy at $\lambda = 230$ nm.

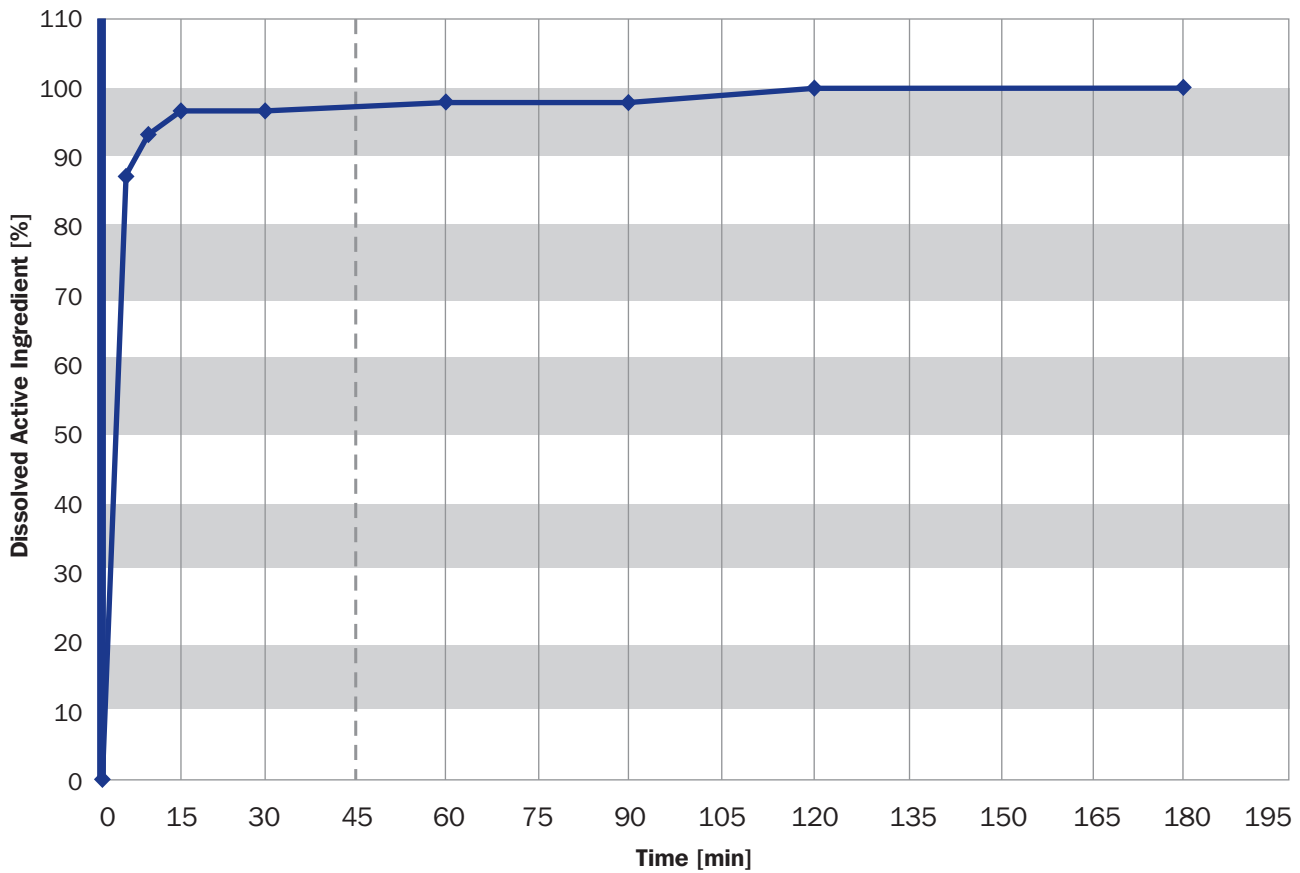


Diagram 1:

Typical dissolution profile of an Atenolol 50 mg tablet. Produced according to the above formulation.

Disclaimer: The information provided is based on thorough research and is believed to be completely reliable. Application suggestions are given to assist our customers, but are for guidance only. Circumstances in which our material is used vary and are beyond our control. Therefore, we cannot assume any responsibility for risks or liabilities, which may result from the use of this technical advice.