

Formulation Study

Paracetamol (Acetaminophen) Crystalline Grade Direct Compression

Summary

Bulk acetaminophen used in manufacturing is available in different grades of quality. Crystalline grades are optimally compressible, whereas amorphous grades are poorly compressible. The following formulation combines crystalline acetaminophen with PROSOLV® RX 90 in a typical 500 mg dosage.

Tablet characteristics

Compaction force	17 kN
Tablet diameter	13 mm
Tablet weight	800 mg
Crushing strength	80 N
Friability	1.0 %
Disintegration time	15 s

Formulation

	Active content [mg]	mg/tablet	Contribution [%]
Paracetamol (Acetaminophen)	500.0	500.0	62.5
PROSOLV® RX 90		300.0	37.5
Total		800.0	100.0

Procedure

Blending

The API was blended with PROSOLV® RX 90 for 15 minutes. The powder mixture was ready for direct compression.

Equipment	
Tablet press	Korsch EK 0
Turbula mixer	Type T2A
Hardness tester	Schleuniger Tablet Tester 6D
Disintegration tester	Pharmatest PTZ

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