

4282-018

Natural Herbal Laxative *Cassia Senna & Melissa Officinalis* Direct Compression

Key Words: Sticky Actives, Medium Concentration, Direct Compression
JRS Products: PROSOLV® SMCC 90, EMCOSOY®, PRUV®

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Summary

Cassia Senna and *Melissa Officinalis* are poorly flowing, poorly compressible herbal extracts used as a natural laxative herbal remedy. They can be directly compressed easily with **PROSOLV®**

SMCC 90 due to the enhanced flow and compaction properties of this excipient. Tablet disintegration is achieved using **EMCOSOY®**, naturally derived soy polysaccharides.

Formulation

	Active content [mg]	mg/tablet	Contribution [%]
Senna Extract	75.0	75.0	37.5
Melissa Leaf Extract	50.0	50.0	25.0
PROSOLV® SMCC 90 (Silicified Microcrystalline Cellulose)		60.0	30.0
EMCOSOY® (Soy Polysaccharides)		8.0	4.0
Talcum		6.0	3.0
PRUV® (Sodium Stearyl Fumarate)		1.0	0.5
Total		200.0	100.0

Procedure

Blending:

The Senna and Melissa extracts were blended for 10 minutes. **PROSOLV® SMCC 90** was added and the blend mixed for 10 minutes. In the next step, **EMCOSOY®** was added and mixed for 10 minutes. Then Talcum was added and mixed for 5 minutes. In the final mixing step, **PRUV®** was added and mixed for 5 minutes. The powder mixture was ready for direct compression.

Equipment:

Blender:	Patterson-Kelly 2 qt. Twin-shell V-blender
Flowability Apparatus:	Hanson Research Flodex®
Tablet Press:	Korsch PH-106 rotary tablet press
Hardness Tester:	Erweka TBH-30
Disintegration Tester:	Erweka ZT3

Tablet Characteristics

Tablet Weight:	200 mg
Flow (Bridging Aperture Flodex):	14 mm
Crushing Strength:	70 N
Compaction Force:	18 kN
Disintegration Time:	120 s

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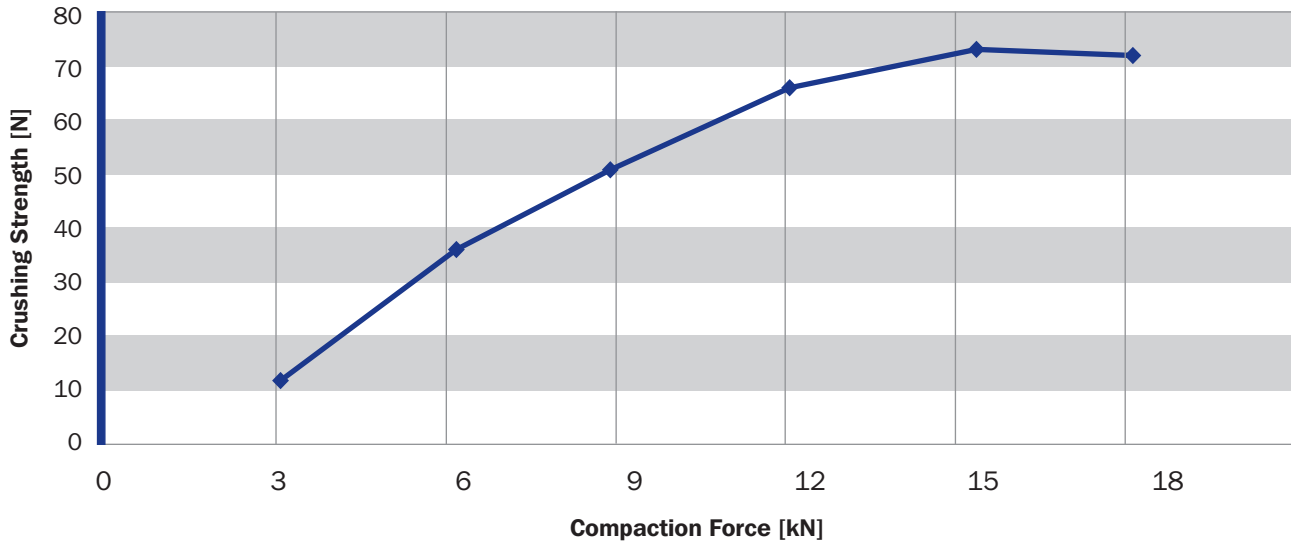


Diagram 1:
Tablet Hardness as a Function of Compaction Force

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