

Nutra Case Studies for SIGACHI Website Updates

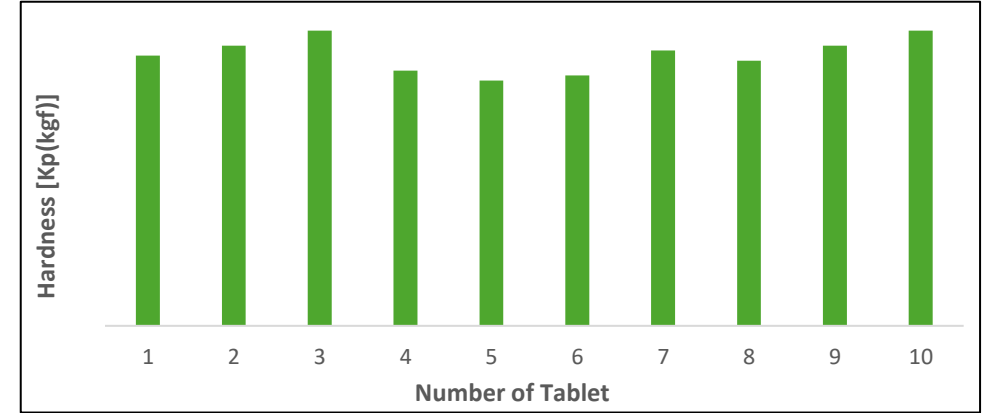
HiCel[®] MCC and HiCel[®] SMCC

Sr. No.	Ingredients	Quantity (% w/w)
1	Thiamine Hydrochloride	55.0
2	HiCel [™]	39.7
3	Croscarmellose sodium	4.0
4	Colloidal silicon dioxide	0.8
5	Magnesium stearate	0.5
Total		100%

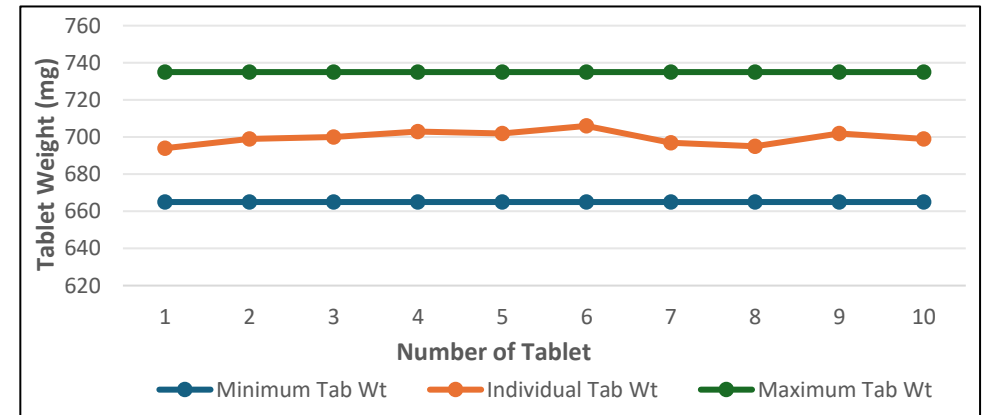
Thiamine HCl tablet composition

Sr. No.	Ingredients	Quantity (% w/w)
1	Thiamine Hydrochloride	15.72
2	Calcium carbonate	25.71
3	HiCel [™] SMCC	54.27
4	Croscarmellose sodium	3.50
5	Magnesium stearate	0.80
Total		100%

Thiamine HCl tablet composition



Hardness uniformity in Thiamine HCl Tablet



Weight uniformity in Thiamine HCl Tablet

Tablets containing Thiamine HCl and HiCel[®] obtained by Direct Compression method demonstrated efficient processability and good tablet properties

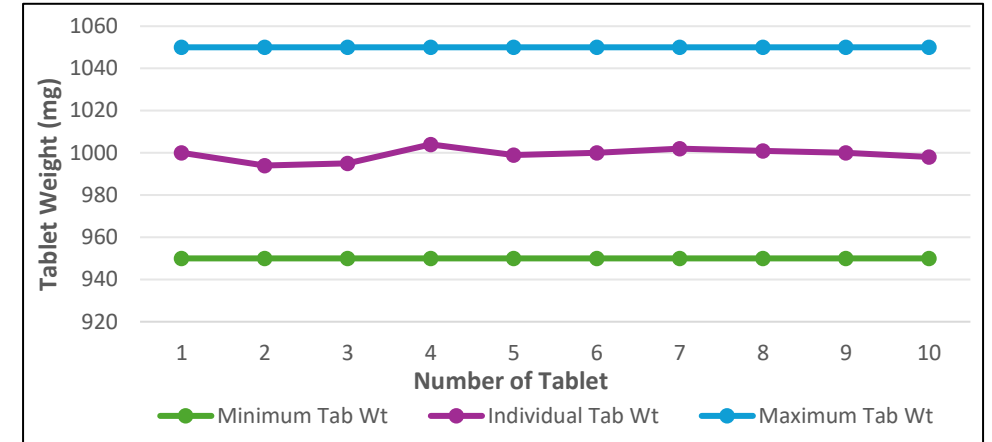
HiCel[®] XLM

Sr. No.	Ingredients	Quantity % w/w
1	L-Cystiene	50.0
2	HiCel [™] XLM90	44.0
3	Croscarmellose sodium	4.00
4	Colloidal silicone dioxide	0.80
5	Talc	1.20
Total		100%

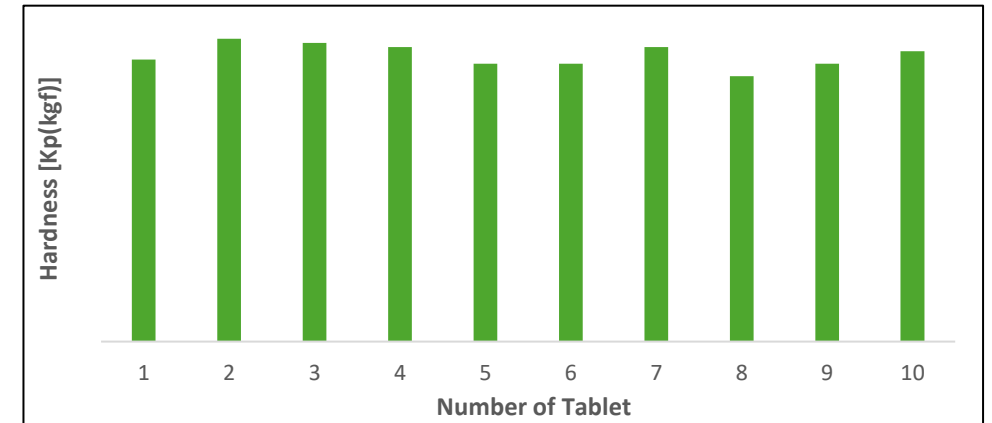
L- cystiene tablet composition

Sr. No.	Ingredients	Quantity % w/w
1	L-Arginine	47.62
2	HiCel [™] XLM200	43.88
3	Croscarmellose sodium	4.00
4	Colloidal silicone dioxide	1.50
5	Dicalcium phosphate dihydrate	2.00
6	Sodium stearyl fumarate	1.00
Total		100%

L- arginine tablet composition



Weight variation in L- cystiene Tablet



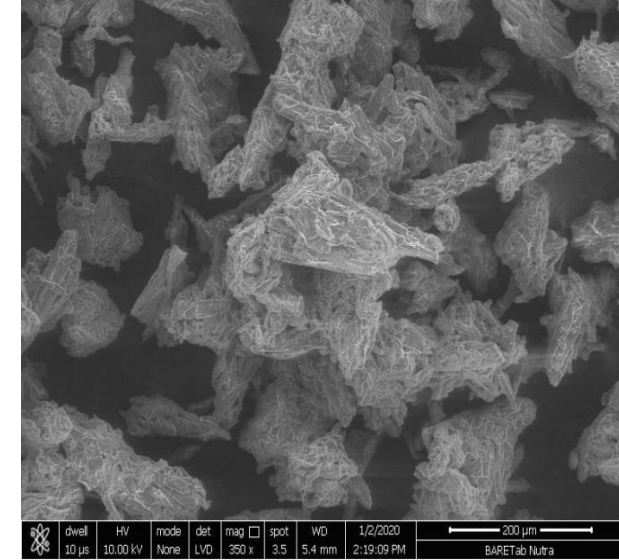
Hardness uniformity in L- arginine Tablet

Tablets containing hygroscopic nutraceuticals and HiCel[®] XLM obtained by Direct Compression method demonstrated efficient processability and good tablet properties

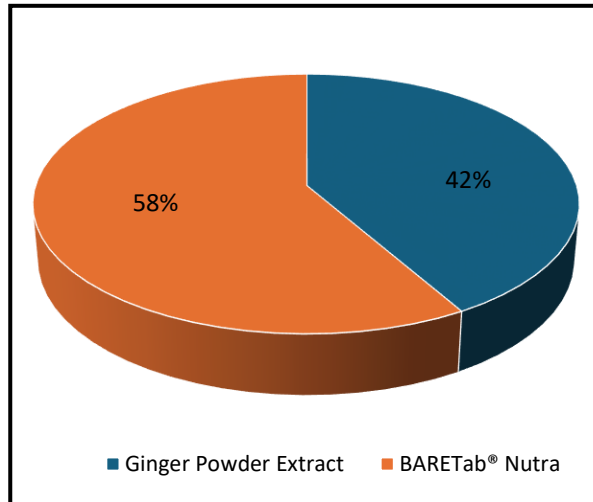
BARETab[®] Nutra

Grade	Untapped Bulk density (g/mL)	Average particle size (µm)	Loss on Drying (%)
BARETab [®] Nutra 90M	0.26-0.45	90-150	Not more than 7.0
BARETab [®] Nutra 50M	0.26-0.45	45-80	Not more than 7.0
BARETab [®] Nutra LM90	0.26-0.50	90-150	Not more than 3.0

Grade and Physical Parameters specification



Scanning Electron Microscope image of BARETab[®] Nutra



Ginger extract tablet composition

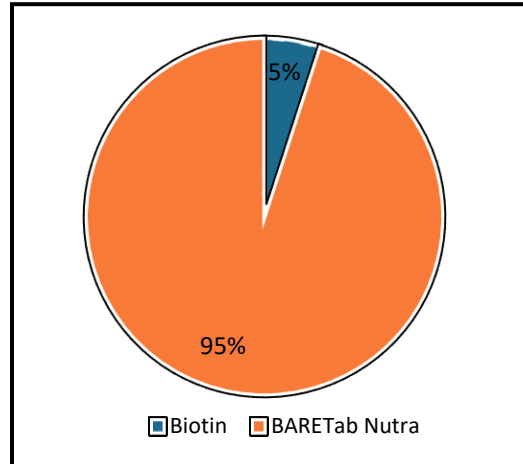
Sr. No.	Parameters	Results
1	Tablet Description	Elongated, concave, shaped brown tablet
2	Weight Variation (mg)	600 ± 1.52
3	Hardness [Kp(kgf)]	11.82 ± 1.67
4	Diameter (mm)	18.00
5	Friability (%)	0.121
6	Disintegration Time (Minutes)	04 minutes 04 seconds

Tablet

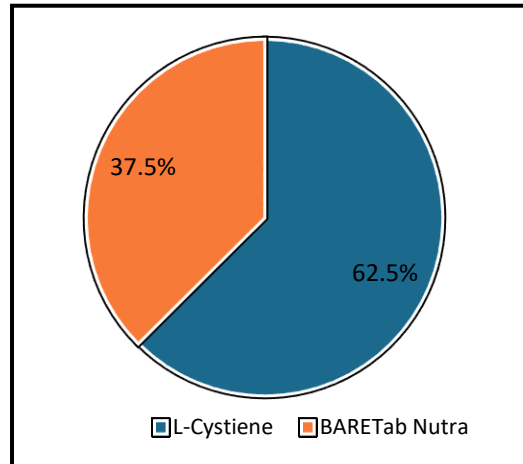
Characteristics

Ginger extract tablets containing BARETab[®] Nutra obtained by Direct Compression method possess good strength

BARETab[®] Nutra



Biotin tablet composition



L- cystiene tablet composition

Characteristic	Results
Description	Elongated, Concave shaped, White colored tablet
Tablet Weight (mg)	100.00
Diameter (mm)	10.00
Thickness (mm)	2.15
Hardness (N)	90.00
Friability (%)	0.057
Disintegration Time (seconds)	110.0

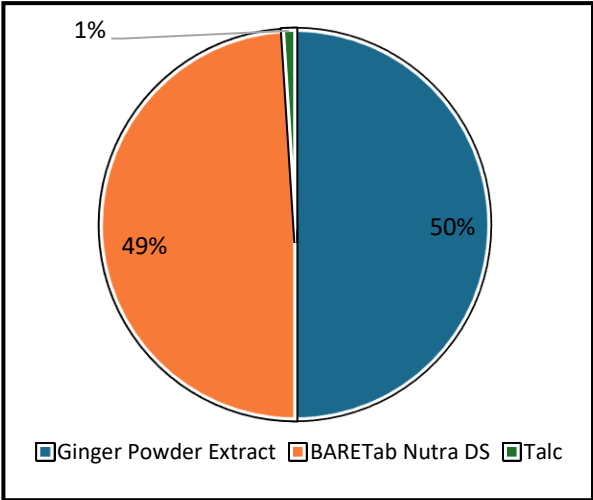
Biotin Tablet physical properties

Characteristic	Results
Description	Round, flat shaped off white colored tablet
Tablet weight (mg)	800.0
Diameter (mm)	18.0
Thickness (mm)	5.8
Hardness (N)	88.7
Friability (%)	00
Disintegration Time (seconds)	9.5

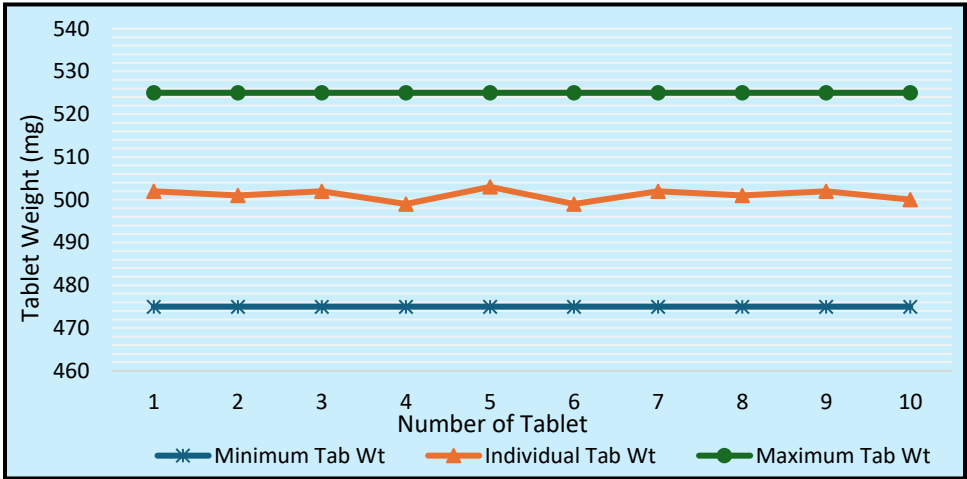
L- cystiene Tablet physical properties

Nutraceutical tablets containing BARETab[®] Nutra obtained by Direct Compression method demonstrated good tablet properties

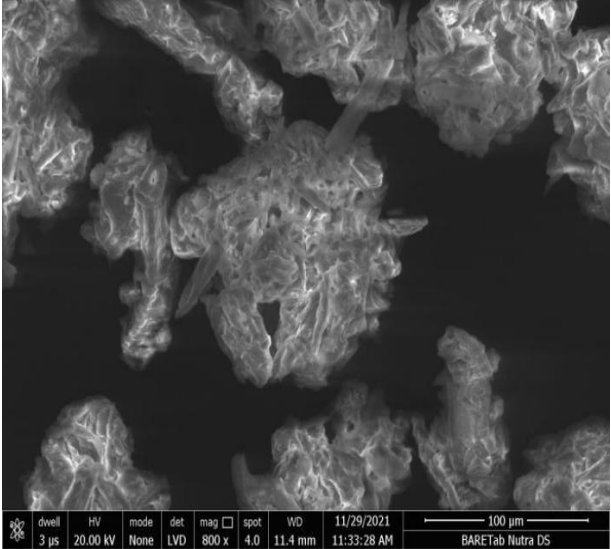
BARETab[®] Nutra DS



Ginger extract tablet composition



Tablet weight variation data



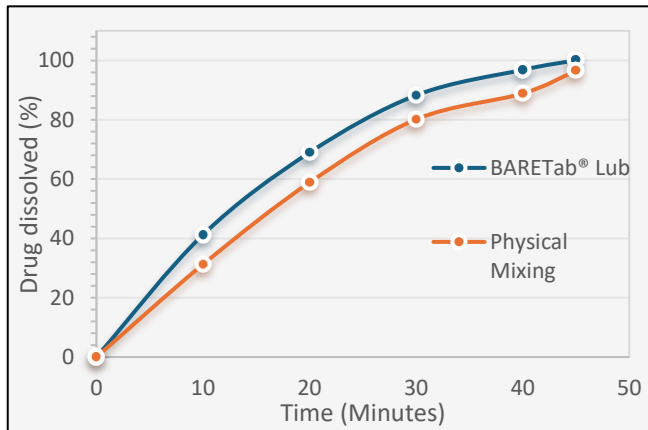
Scanning Electron Microscope image of BARETab[®] Nutra DS

Ginger extract tablets containing BARETab[®] Nutra DS obtained by Direct Compression method demonstrated improved procesability and strength

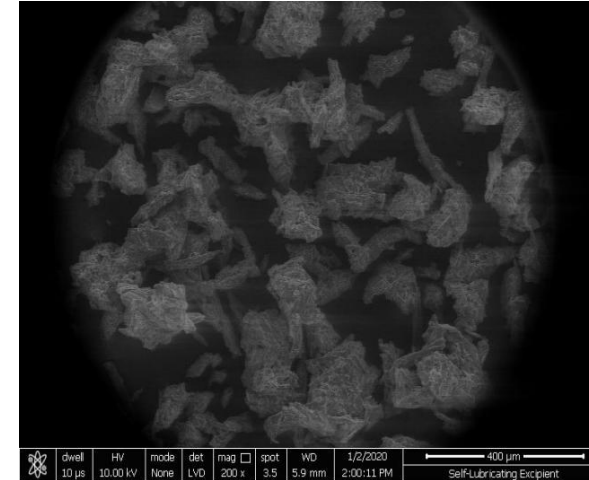
BARETab[®] Lub

Sr. No.	Ingredients	Quantity (% w/w)	
		BARETab [®] Lub	Physical Mixing
1	Vitamin C (Ascorbic acid)	40.00	40.00
2	BARETab[®] Lub	55.50	-
3	Physical Mixing	-	55.50
4	HiLose™	4.50	4.50
Total		100%	100%

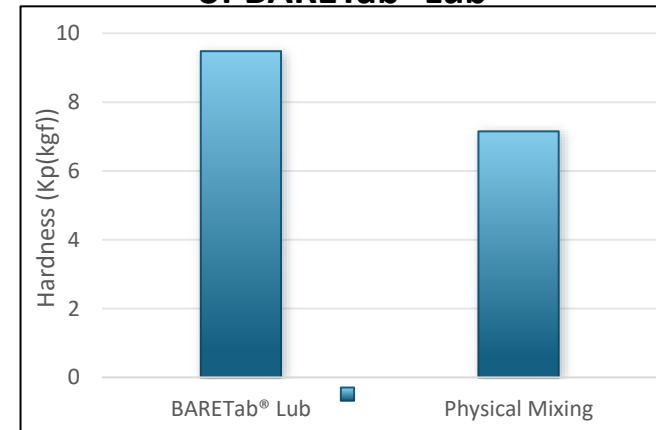
Vitamin C tablet composition



Vitamin C tablet dissolution



Scanning Electron Microscope image of BARETab[®] Lub



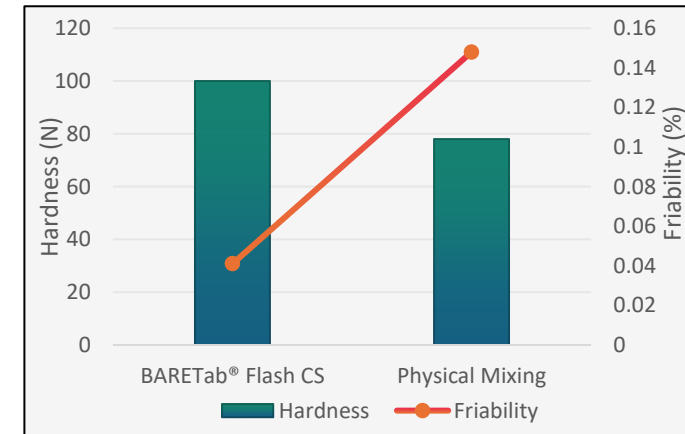
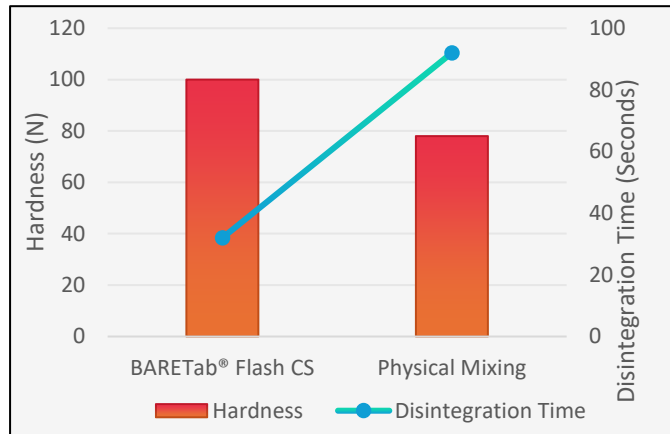
Vitamin C Tablet physical properties

Vitamin C Tablets containing BARETab[®] Lub obtained by Direct Compression method demonstrated improved processability and unchanged performance

BARETab[®] Flash CS

Sr.No	Ingredients	Quantity %w/w	
		BARETab [®] Flash CS	Physical Mixing
1	Ginseng Powder Extract	40.00	40.00
2	BARETab[®] Flash CS	58.70	-
3	Physical Mixing	-	58.70
4	Colloidal Silicon Dioxide	0.50	0.50
5	MagLub [®]	0.80	0.80
Total		100%	100%

Ginseng extract tablet composition



Influence of hardness on disintegration in Ginseng extract tablet

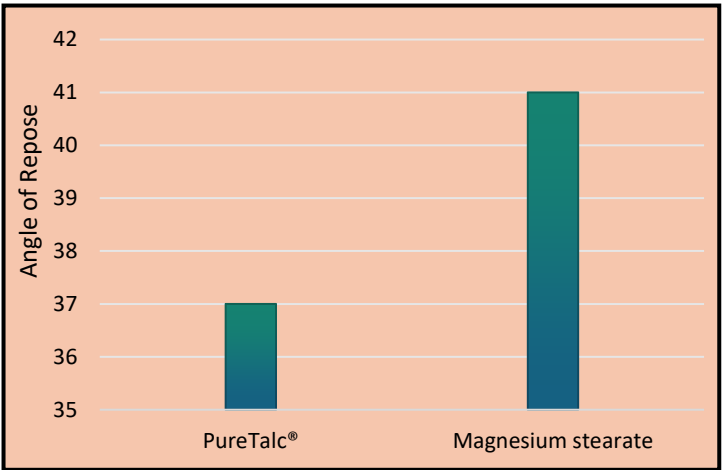
Ginseng extract tablet strength

Ginseng extract tablet containing BARETab[®] Flash CS obtained by Direct Compression method demonstrated improved strength without compromising performance

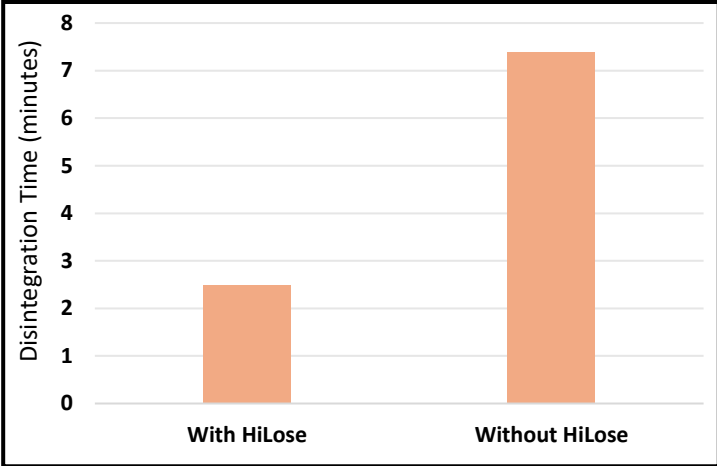
PureTalc® and HiLose®

Sr. No.	Ingredients	Quantity (% w/w)	
		PureTalc®	Magnesium stearate
1.	Boswellia extract	65.00	65.00
2.	HiCel™ LP200	34.00	34.00
3.	PureTalc®	1.00	--
4.	Magnesium stearate	--	1.00

Formulation of Boswellia Extract Tablets



Boswelia Blend Flow Characteristics



Ginseng Extract tablets Disintegration

Nutraceutical tablets containing SIGACHI's PureTalc® and HiLose® obtained by direct compression method demonstrated better tablet properties than conventional lubricants

Thank you!!