# Capsugel®



## Vcaps<sup>®</sup>, Vcaps<sup>®</sup> Plus and DRcaps<sup>™</sup> capsules are optionally available as low moisture, low water activity capsules

#### DESCRIPTION

Low moisture capsules made from HPMC are an ideal solution for hygroscopic powder fills because they have low moisture and low water activity (Lwa) at <0.25. These vegetarian capsules restrict water transfer to moisture sensitive APIs, powders, and ingredients, providing more stability and shelf-life for these formulations.

#### **STABILITY**

The low moisture capsules have been produced under specific conditions, and they are packaged in aluminum bags to ensure lower moisture content for 12 months if unopened and when stored under standard storage conditions.

#### FILLING PROCESS

Relative humidity (RH) must be controlled throughout the complete manufacturing process when filling low moisture capsules. The conditions should be monitored and kept below 30% RH. Capsugel can assist you in monitoring your manufacturing steps and measuring your RH levels.

#### MACHINABILITY

These capsules have been tested on major capsule filling machines, and have shown good performance.

#### **USAGE REQUIREMENTS**

A complete carton of capsules must be used at once. Capsugel cannot guarantee the low humidity of opened and unused low moisture capsules even if stored in pre-opened aluminum bags.



### **General Specifications**

#### ANALYTICAL DATA

CHARACTERISTICS	TEST METHOD	UNITS	SPECIFICATIONS
Hypromellose Identification	VCP010		Positive
Identification of Iron Oxides	VCP011		Conforms to composition
Identification of Titanium Dioxides	VCP017		Conforms to composition
Loss on Drying	VCP012	%	Vcaps® & DRcaps <sup>™</sup> : Less than 2.2 Vcaps® Plus: Less than 2.4
Sulphated Ash	VCP013	%	Less than 6
Arsenic	VCP015A	ppm	Less than 1.5
Cadmium	VCP015B	ppm	Less than 0.5
Lead	VCP015C	ppm	Less than 1
Mercury	VCP015D	ppm	Less than 0.1
Lubricant Content	VCP016	%	Less than 0.5
Total Aerobic Microbial Count	VCP031	cfu / g	Less than 1000
Escherichia Coli	VCP032		Absence in 1 gram
Salmonella	VCP033		Absence in 10 gram
Staphylococcus Aureus	VCP034		Absence in 1 gram
Total Yeasts/Moulds Count	VCP035	cfu / g	Less than 100
Pseudomonas Aeruginosa	VCP036		Absence in 1 gram

#### PHYSICAL CHARACTERISTICS

This product conforms to established A.Q.L.'s for Physical Attributes.

Appearance – Clean empty capsules, meeting the specified requirements of color and size.

Odor – Free of disagreeable odor.

For more information

Visit Capsugel.com or contact your Capsugel representative at 800-845-6973.