

Pharma Solutions

# METHOCEL™ VLV

For Granulation Binder Applications



### What is METHOCEL™ VLV?

VLV, stands for very low viscosity, it is the lowest molecular weight version of Hypromellose 2906 USP in the METHOCEL™ family of products. It complies with current USP/EP/JP, GRAS, as well as with U.S. FDA 21 CFR 172.874 requirements.

The polymer helps to increase solid loading in your solution without building solution viscosity. This not only facilitates for higher productivity tablet coatings but also can be used as a granulation binder or in drug layering applications.

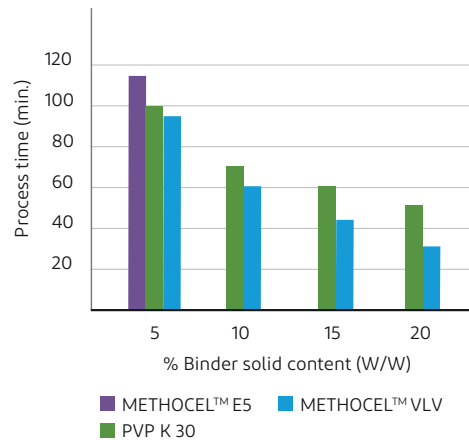
### What are the benefits of using METHOCEL™ Premium Very Low Viscosity (VLV) in binder granulation applications?

Highly concentrated polymeric solutions, like METHOCEL™ VLV, containing low molecular weight hypromellose, can result in significantly reduced granulation time while helping to improve the tablet quality and appearance.

Low-viscosity hypromellose polymers are frequently used in binder granulation applications, yet their limitation has been rapid viscosity build upon dissolution in water. Viscosity is mainly dictated by polymer concentration. Lower polymer concentration results in lower viscosity, but leads to relatively longer granulation times. Naturally, the viscosity must remain sufficiently low to facilitate atomization. METHOCEL™ VLV, an innovation from DuPont Nutrition & Biosciences, helps customers address their granulation needs while minimizing their time and cost of production during this processing step.

### Enabling Time Saving Solutions

So our Customers can Focus on Life Saving Initiatives



Results from internal studies carried in Midland and Mumbai in 2013

METHOCEL™ Premium VLV facilitates a more productive high-quality binder granulation process by helping customers to:

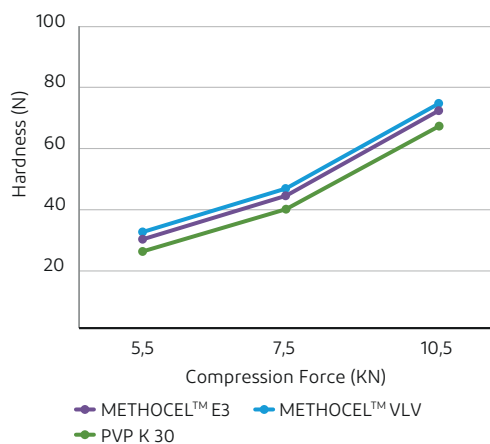
- Lower the processing time, and the associated manufacturing costs by as much as 30% when compared to METHOCEL™ Premium E-LV and PVP; Achieve Higher solids loading when compared to METHOCEL™ Premium E-LV;
- Simplify the binder granulation process of handling and pumping ;
- Enabling faster drying of granules when compared to PVP, at lower inlet temperatures ;
- High binding capacity at low use levels (e.g. 1 to 5% w/w) for uniform granules.

# Enabling High Class Tablet Properties

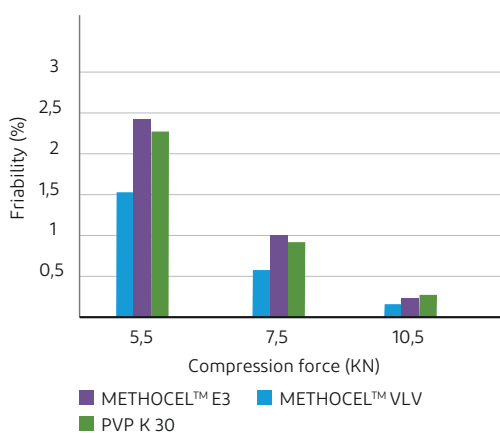
Using METHOCEL™ VLV as a binder granulation solution facilitates formulation of exceptional tablets with:

- Excellent tablet hardness;
- Low tablet friability;
- Fast disintegration time;
- Excellent stability with no peroxide or impurity problems.

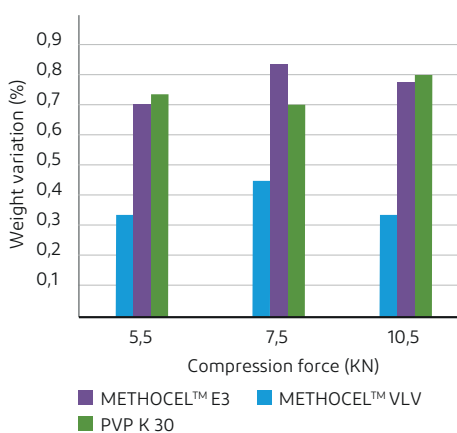
Excellent Tablet Hardness With METHOCEL™ VLV



High class Tablet Friability with METHOCEL™ VLV



Less Tablet Weight Variations with METHOCEL™ VLV





Competitively priced  
for your existing or  
new formulations,  
call a DuPont  
representative today  
for a free sample



## Nutrition & Biosciences

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[www.dupontnutritionandbiosciences.com](http://www.dupontnutritionandbiosciences.com)

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