

**ARBOCEL®**  
for enhanced  
rubber

## PLANT FIBERS FOR RUBBER APPLICATIONS

Plant-based fibers are valuable functional additives to enhance the performance of rubber formulations. From tennis-balls over gaskets to v-belts.

### Advantages of ARBOCEL® in Rubber applications



Improved friction – V-belts



reduced noise – V-belts



reinforced cord layer – tooth belts



reinforced walls – hoses



reinforced gaskets

### Rubber Compounds - EPDM | NBR | SBR | NR | BR

Natural based fibers and particles are used since decades in different rubber applications. Short cellulose fibers and particles enhance transmission belts due to friction as well as noise reduction and stabilize the essential cord layer during production. Defined wood particles in tennis ball and shoes tune the density, have a damping effect and help with smell removal. Meanwhile, gaskets and tubes can be reinforced with longer virgin and recycled cellulose fibers. All while increasing the bio-based content.

### Applications

Transmission belts | gaskets | shoe soles | hoses | additive carrier | shaft sealing rings | tennis balls | sealants | rubber flooring | rubber dispersions

### Product Use

#### Case 1: Transmission belts



Rubber: EPDM, NBR, SBR

Additive: **ARBOCEL® BE-600-10-TG**  
**ARBOCEL® FD-600-30**

Parts: 50 phr

Processing method: Calander

#### Case 2: Gaskets



Rubber: NBR, SBR

Additive: **ARBOCEL® FD-600-30**  
**ARBOCEL®**

Parts: 50-100 phr

Processing method: Calander

## Product Use

### Case 3: Tennis ball



Rubber: NR/BR/SBR  
Additive: **ARBOCEL®  
C-750-FP**  
Parts: 30 phr  
Processing method: Calander

### Case 4: Rubber Sealants



Rubber: various  
Additive: **VIVAPUR®  
ALGINATE**  
Parts: 0 - 2 %  
(rheology additive)  
Processing method: Stirrer

## Product Selection

| Overview                                        | µm   |
|-------------------------------------------------|------|
| <b>Native cellulose (hard wood)</b>             |      |
| BE-600-10-TG                                    | 18   |
| BE-600-30                                       | 30   |
| B-600                                           | 60   |
| BWW-40                                          | 200  |
| B-400                                           | 900  |
| <b>Native cellulose (soft wood)</b>             |      |
| FIF-400                                         | 2000 |
| <b>Native cellulose (cotton)</b>                |      |
| BSCH-750-D                                      | 650  |
| <b>Off-white cellulose / technical grades</b>   |      |
| FD-600-30                                       | 45   |
| FD-00 FD-                                       | 150  |
| 40 FIC-                                         | 250  |
| 500-P W-8                                       | 600  |
| <b>Grey cellulose fibers / technical grades</b> |      |
| ZZ-8-1-G                                        | 1300 |
| <b>Wood fibers (soft wood)</b>                  |      |
| C-750-FP                                        | 1000 |
| C-100 C-                                        | 70   |
| 320                                             | 100  |
|                                                 | 300  |

## Disclaimer

The above mentioned information is based on our practical knowledge and experience and is meant to be helpful when using our products. Due to the different materials and processes involved, we recommend in any case, adequate testing at your company or consultation with us. We cannot be held liable for this information. Please consider country-specific regulations.

YU-SHINE CHEMICAL CO.,LTD  
Township,Changhua Cointy 520  
,Taiwan(R.O.C)  
TEL: +886 4 8748958  
yushine68@gmail  
www.yushine68.com