

## **FORMULATION OF ACTIVATED CHARCOAL EXFOLIATORS FOR BODY SCRUB**



**EXFOLIATORS:** Natural Exfoliating agents are used to remove dead cells from the surface of skin and improve blood circulation, giving renewed and glowing skin. It keeps face free from dirt, collected sebaceous secretions also improves the skin appearance Exfoliators removes dull flaky skin, evens skin tone and diminishes the look of fine lines to reveal radiance. Natural exfoliation spheres gently exfoliate and deep clean skin while protecting and nourishing it at the same. Umang Pharmatech manufactures Sprayspheres SE® beads containing natural products specially used for exfoliation.

### **EXFOLIATION BENEFITS:**

- Removal of dead skin cells
- Smoother, firmer skin
- Even-toned complexion
- Refined pores
- Reduces fine wrinkles, hyperpigmentation and scars
- Stimulates blood flow
- Allows for better absorption of moisturizers and serums.

### **ACTIVATED CHARCOAL:**

Activated charcoal is also called as activated carbon is a form of carbon processed to have small, low volume pore that increase the surface area (>1000m<sup>2</sup>/g) also high porosity. It is composed primarily of aromatic configurations of carbon atoms joined by random cross-linkages. Activated Charcoal has various skin properties that make the one of the best natural ingredients for the skin. Activated charcoal is not harsh for the skin.

### **INCI NAME:**

Charcoal Powder (Activated charcoal Powder)

### **PHYSICAL AND CHEMICAL PROPERTIES:**

**Appearance** - Free Flowing black colour spheres

**Solubility** - Practically insoluble in water

**Bulk Density** - NLT 0.6 gm/cc

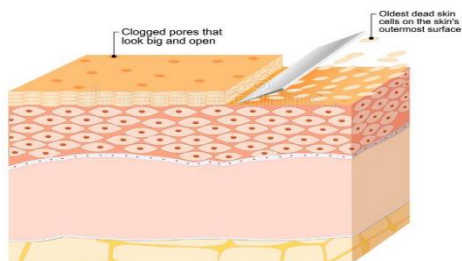
**pH Value (1.0% Slurry)** - 5.0 to 8.0

**Loss on drying** - NMT 8.0%

### **KEY PROPERTIES OF ACTIVATED CHARCOAL EXFOLIATORS:**

- Does not disappear on gentle rub
- Preservative Free.
- Non GMO
- Provides Soft to mild Exfoliation
- Composition has GRAs status.
- Only approved synthetic & natural colors used
- Provide visual effects
- It is natural, non-toxic, non-comedogenic and non-allergenic properties and also biodegradable.
- Soft but effective abrasive,exfoliates naturally restore skin's beauty

## EFFECT OF ACTIVATED CHARCOAL EXFOLIATORS IN BODY SCRUB:



Activated charcoal is a gentle exfoliator. It helps lightly clear out dead cells from the surface of the skin. Activated charcoal pull out bacteria, poisons, chemicals, dirt and other micro-particles to the surface of skin it also sucks out impurities of the skin. Activated charcoal help to remove acne scars, dark spots, blemishes and hyperpigmentation. It also helps lighten the skin by gently exfoliating it. Activated Charcoal balances excess oil secretion and closes the open pores.

**DOSAGE:** 0.5 % to 2% for visual effect and up to 10 % for colour or active delivery.

**STORAGE:** Temperature between 5 and 25° C.

### FORMULATION PROCEDURE:

**Stage 1:** Meter water of part A into appropriate vessel .Add EDTA and mix until dissolved .With moderate propeller agitation, add the carbomer and mix for 20 min.

**Stage 2:** Add ingredients of part B to part A with moderate propeller agitation.

**Stage 3:** Add Part C to Part AB in order listed with moderate propeller agitation .Mix 20-30 min with moderate agitation.

**Stage 4:** Add Part D to batch in order listed .Mix with moderate agitation for 20 min.

**Stage 5:** Adjust batch to pH 5.5 with Part E

**Stage 6:** Activated Charcoal exfoliators are added at the end of manufacturing at moderate temperature and at slow stirring. Shearing or other mechanical stresses should be avoided during all manufacturing and filling process.

FORMULATION TIP	
Ingredients	Qty (wt %)
Part A :	
1.Deionized Water/Diluent	51.45
2.Disodium EDTA/Chelating agent	0.05
3.Carbomer(1)/Thickener	1.00
Part B:	
1.Propylene Glycol/Humectant	1.00
2.Glycerin (96%)/Humectant	2.00
Part C:	
1.Sodium Laureth Sulfate (28-30%)/Surfactant	16.00
2.Disodium Dimethicone Copolyol Sulfosuccinate(30%)(2)/ Surfactant	15.00
3.Polysorbate-20/Emulsifier	1.00
4.Dimethicone (and) Laureth-4 (and) Laureth Z3(SM2169)(3)/Conditioning	5.00
5.Cocamidopropyl Betaine/Surfactant	3.00
Part D:	
1.Polyquaternium-39(4)/Conditioning	3.00
2.DMDM Hydantoin (and) Iodopropynyl Butylcarbarnate(5)/ Preservative	0.15
3. Fragrance(6)	0.25
Part E:	
1.Triethanolamine( 99% ) /pH adjustment	1.10
Activated Charcoal Exfoliators	0.5-2

### PARTICLE SIZES OF EXFOLIATOR BEADS

XS = Extra Small = 0.2 mm

VVS = Very Very Small = 0.2 - 0.3 mm

VS = Very Small = 0.3 - 0.6 mm

S = Small = 0.6 - 0.8 mm

M = Medium = 0.8 - 1.4 mm

L = Large = 1.4 - 2.0 mm

XL = Extra Large = 2 - 5 mm

**KEY WORDS:** Exfoliators Beads, Scrub Beads, Natural Exfoliators Beads, peel off, Flake off.