

# THE PATEL BROTHERS

“ we believe in quality “

01

## Procurement

High-quality castor seeds are sourced from trusted farmers.

02

## Processing

Seeds are cleaned, pressed, and refined to extract premium castor oil

03

## Quality Check

Each batch is tested to meet international standards (FSG/BSS).

04

## Packaging

Oil is packed in drums, IBC tanks, or flexi bags as per buyer's needs

05

## Export & Delivery

Shipped globally with complete export documentation & logistics support.



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www.thepatelbrothers.co

# our PRODUCTS

- ✓ Castor oil commercial grade
- ✓ Refined castor oil ( FSG , BSS )
- ✓ Cold Pressed Castor Oil
- ✓ First Pressed Degummed Castor Oil
- ✓ Pale Pressed Grade Castor Oil
- ✓ Blown Castor Oil
- ✓ Dehydrated Castor Oil
- ✓ PEG-60 Hydrogenated Castor Oil
- ✓ PEG-40 Hydrogenated Castor Oil
- ✓ 12-Hydroxy Stearic Acid (12-HSA)
- ✓ Hydrogenated Castor Oil Flakes
- ✓ High Protein Castor Meal (Protein Powder)
- ✓ Castor Seed Oil Cake
- ✓ Castor De-Oiled Cake

# Castor oil commercial grade

## Application

- Soaps
- Detergents
- Lubricants
- Greases
- Paints
- Varnishes
- Printing Inks
- Rubber
- Adhesives
- Sealants
- Resins
- Plastics



## Technical Specifications

| R No | Characteristics            | Specifications |
|------|----------------------------|----------------|
| 1.   | Moisture & Volatile Matter | 0.50% Max      |
| 2.   | Colour                     | 40 Units Max   |
| 3.   | FFA (Free Fatty Acid)      | 2% Max         |
| 4.   | Unsaponifiable Matter      | 1% Max         |
| 5.   | Iodine Value               | 82 – 90        |
| 6.   | Acid Value                 | 4.00% Max      |
| 7.   | Hydroxyl Value             | 160 – 168      |
| 8.   | Saponification Value       | 177 – 187      |
| 9.   | Acetyl Value               | 140 Min        |
| 10.  | Relative Density           | 0.958 – 0.969  |
| 11.  | Ricinoleic Acid            | 85% Min        |
| 12.  | Refractive Index           | 1.477 – 1.481  |



# Refined castor oil ( FSG , BSS )

## Application

- Pharmaceuticals
- Lip Care Product
- Cosmetics
- Ointments
- Food Additives
- Capsules & Syrups
- Hair Oils
- Massage Oils
- Skin Creams & Lotions
- Personal Care Products



## Technical Specifications

| R No | Characteristics              | Specifications      |
|------|------------------------------|---------------------|
| 1.   | Appearance                   | Viscous Transparent |
| 2.   | Colour                       | Yellow              |
| 3.   | Colour on 5/4" Lovibond Cell | Max 20Y + 2R        |
| 4.   | Free Fatty Acid              | 1% Max              |
| 5.   | Acid Value                   | 2 mg KOH/gr. Max    |
| 6.   | Refractive Index             | 1.477 – 1.481       |
| 7.   | Relative Density @20°C       | 0.954 – 0.960       |
| 8.   | Saponification Value         | 177 – 185           |
| 9.   | Unsaponifiable Matter        | 0.01                |
| 10.  | Hydroxyl Number              | 160 – 168           |
| 11.  | Iodine Number                | 82 – 90             |
| 12.  | Ricinoleic Acid              | 85% Min             |
| 13.  | Moisture                     | 0.25% Max           |



# Cold Pressed Castor Oil

## Application

- Pharmaceuticals
- Laxatives
- Cosmetics
- Personal Care
- Hair Oils
- Soaps
- Aromatherapy
- Massage Oils
- Skin Care Products
- Nutraceuticals
- Dietary Supplements
- Lubricants



## Technical Specifications

| R No | Characteristics                 | Specifications                     |
|------|---------------------------------|------------------------------------|
| 1.   | Appearance                      | Clear, pale yellow, viscous liquid |
| 2.   | Colour (Lovibond 5¼" cell)      | Yellow 10 max, Red 1 max           |
| 3.   | Odour                           | Mild, characteristic               |
| 4.   | Moisture & Volatile Matter      | 0.25% Max                          |
| 5.   | Free Fatty Acid (as Oleic Acid) | 1.0% Max                           |
| 6.   | Acid Value                      | 2.0 Max                            |
| 7.   | Iodine Value                    | 82 – 90                            |
| 8.   | Hydroxyl Value                  | 160 – 168                          |
| 9.   | Saponification Value            | 177 – 187                          |
| 10.  | Acetyl Value                    | 140 Min                            |
| 11.  | Unsaponifiable Matter           | 1.0% Max                           |
| 12.  | Refractive Index @ 40°C         | 1.477 – 1.481                      |
| 13.  | Relative Density @ 30°C         | 0.958 – 0.969                      |
| 14.  | Viscosity (Gardner Hold)        | U – V                              |
| 15.  | Ricinoleic Acid Content         | 85% Min                            |



# First Pressed Degummed Castor Oil

## Application

- Paints & Varnishes
- Alkyd Resins
- Printing Inks
- Lubricants
- Leather Finishes
- Plasticizers
- Adhesives & Sealants
- Soaps & Detergents
- Surface Coatings
- Rubber Industry



## Technical Specifications

| R No | Characteristics                | Specifications |
|------|--------------------------------|----------------|
| 1.   | Colour Lovibond 1" Cell (Y+5R) | 20 Max         |
| 2.   | Acid Value                     | 2.0 Max        |
| 3.   | Hydroxyl Value                 | 180 Max        |
| 4.   | Saponification Value           | 177 – 185      |
| 5.   | Iodine Value                   | 82 – 90        |
| 6.   | Moisture & Volatile Matter     | 0.5% Max       |



# Pale Pressed Grade Castor Oil

## Application

- Pharmaceuticals
- Lip Care Products
- Cosmetics
- Ointments & Balms
- Food Industry
- Capsules & Syrups
- Hair Oils
- Massage Oils
- Skin Creams & Lotions
- Personal Care Products



## Technical Specifications

| R No | Characteristics              | Specifications                               |
|------|------------------------------|--|
| 1.   | Free Fatty Acid              | 1.0 Max                                      |
| 2.   | Acid Value                   | 2.0 Max                                      |
| 3.   | Moisture & Volatile Matter   | 0.25 Max                                     |
| 4.   | Insoluble Impurities         | 0.02% Max                                    |
| 5.   | Iodine Value                 | 82 - 90                                      |
| 6.   | Hydroxyl Value               | 160 - 168                                    |
| 7.   | Acetyl Value                 | 140 Min                                      |
| 8.   | Saponification Value         | 177 - 187                                    |
| 9.   | Unsaponifiable Matter        | 1.00 Max                                     |
| 10.  | Colour (Lovibond 5¼" Cell)   | Yellow 10, Red 1 Max                         |
| 11.  | Refractive Index             | 1.477 - 1.481                                |
| 12.  | Relative Density (15/15.5°C) | 0.958 - 0.969                                |
| 13.  | Viscosity (Gardner-Holdt)    | U - V  |
| 14.  | Strokes                      | 6.3 - 8.9                                    |
| 15.  | Appearance @250°C            | Brilliantly Clear & Free of Suspended Matter |
| 16.  | Odour                        | Very Slightly, Characteristic                |
| 17.  | Ricinoleic Acid Content      | 85% Min                                      |



# Blown Castor Oil

## Application

- Paints & Varnishes
- Printing Inks
- Sealants
- Lubricants
- Leather Dressing
- Rubber Compounding
- Adhesives
- Linoleum & Coatings
- Plasticizers
- Textile Auxiliaries



## Technical Specifications

| R No | Characteristics            | Specifications                           |
|------|----------------------------|--|
| 1.   | Appearance                 | : Viscous, Clear to Slightly Hazy Liquid |
| 2.   | Colour (Lovibond 5¼" Cell) | Maximum 20 Y + 2 R                       |
| 3.   | Acid Value                 | ≤ 6 mg KOH/g                             |
| 4.   | Free Fatty Acid            | ≤ 2%                                     |
| 5.   | Iodine Value               | 70 – 82                                  |
| 6.   | Hydroxyl Value             | 120 – 160                                |
| 7.   | Saponification Value       | 175 – 185                                |
| 8.   | Moisture & Volatile Matter | ≤ 0.5%                                   |
| 9.   | Unsaponifiable Matter      | ≤ 1.0%                                   |
| 10.  | Refractive Index (at 40°C) | 1.475 – 1.485                            |
| 11.  | Viscosity (at 25°C, cP)    | 1500 – 2500                              |
| 12.  | Specific Gravity (at 30°C) | 0.960 – 0.980                            |



# Dehydrated Castor Oil

## Application

- Linoleum Manufacturing
- Resin & Polymer Modifier
- Automotive Coatings
- Marine Coatings
- Industrial Finishes
- Printing Inks
- Adhesives
- Sealants
- Paints & Varnishes
- Surface Coatings



## Technical Specifications

| R No | Characteristics            | Specifications                                       |
|------|----------------------------|--|
| 1.   | Appearance                 | Clear to pale yellow viscous liquid                  |
| 2.   | Odor                       | Slight, characteristic                               |
| 3.   | Acid Value                 | $\leq 5.0$ mg KOH/g                                  |
| 4.   | Iodine Value               | 128-140  |
| 5.   | Hydroxyl Value             | $\leq 10$  |
| 6.   | Viscosity (at 25°C)        | 5-10 poise   |
| 7.   | Moisture & Volatile Matter | $\leq 0.25\%$  |
| 8.   | Insoluble Impurities       | $\leq 0.02\%$  |
| 9.   | Saponification Value       | 175-185 mg KOH/g                                     |
| 10.  | Color (Gardner)            | $\leq 6$   |
| 11.  | Solubility                 | Insoluble in water, soluble in most organic solvents |



# PEG-60 Hydrogenated Castor Oil

## Application

- Emulsifier
- Solubilizer
- Surfactant
- Dispersing Agent
- Stabilizer
- Pharmaceutical use
- Food & Flavor emulsifier



## Technical Specifications

| R No | Characteristics            | Specifications                                   |
|------|----------------------------|--|
| 1.   | Appearance                 | Viscous liquid or paste, pale yellow to amber    |
| 2.   | Odor                       | Slight, characteristic                           |
| 3.   | Acid Value                 | $\leq 2.0$ mg KOH/g                              |
| 4.   | Saponification Value       | 50-60 mg KOH/g                                   |
| 5.   | Hydroxyl Value             | ~45-65   |
| 6.   | pH (10% solution in water) | 5.0-7.0  |
| 7.   | HLB Value                  | 14-16 (highly hydrophilic)                       |
| 8.   | Solubility                 | Soluble in water & alcohols, dispersible in oils |
| 9.   | Moisture Content           | $\leq 1.0\%$                                     |
| 10.  | Peroxide Value             | $\leq 5.0$ meq/kg                                |



# PEG-40 Hydrogenated Castor Oil

## Application

- Cosmetics & Personal Care Products
- Hair Care Formulations
- Skin Care Creams & Lotions
- Pharmaceutical Formulations
- Oral Care Products
- Fragrance & Perfume Solubilizer
- Sunscreens
- Cleansers & Makeup Removers
- Industrial Emulsions



## Technical Specifications

| R No | Characteristics            | Specifications                                   |
|------|----------------------------|--|
| 1.   | Appearance                 | Viscous liquid or paste, pale yellow to amber    |
| 2.   | Odor                       | Slight, characteristic                           |
| 3.   | Acid Value                 | $\leq 2$ mg KOH/g                                |
| 4.   | Saponification Value       | 50-60 mg KOH/g                                   |
| 5.   | Hydroxyl Value             | sim 45 - 65                                      |
| 6.   | pH (10% solution in water) | 5.0-7.0  |
| 7.   | HLB Value                  | ~14-16 (highly hydrophilic)                      |
| 8.   | Solubility                 | Soluble in water & alcohols, dispersible in oils |
| 9.   | Moisture Content           | $\leq 1\%$                                       |
| 10.  | Peroxide Value             | $\leq 5$ meq / k * g                             |



# 12-Hydroxy Stearic Acid (12-HSA)

## Application

- Lubricants
- Greases Cosmetics & Personal Care
- Pharmaceuticals
- Plastics & Rubber
- Coatings & Paints
- Polishes & Waxes
- Textile Auxiliaries
- Thickening Agent
- Intermediate for Esters and Surfactants



## Technical Specifications

| R No | Characteristics      | Specifications   |
|------|----------------------|--|
| 1.   | Appearance           | White to off-white flakes/powder                               |
| 2.   | Odor                 | Mild, characteristic   |
| 3.   | Assay (Purity)       | ≥ 98%  |
| 4.   | Acid Value           | 175-185 mg KOH/g   |
| 5.   | Saponification Value | 180-200 mg KOH/g   |
| 6.   | Hydroxyl Value       | 155-175 mg KOH/g   |
| 7.   | Iodine Value         | ≤5   |
| 8.   | Melting Point        | 75-80 °C   |
| 9.   | Moisture Content     | < 0.5%   |
| 10.  | Solubility           | Insoluble in water, soluble in alcohols, esters & hydrocarbons |



# Hydrogenated Castor Oil Flakes

## Application

- Cosmetics & Personal Care
- Pharmaceuticals
- Plastics & Polymers
- Surface Coatings
- Textile Industry
- Paper Industry
- Candles & Waxes
- Rubber Industry



## Technical Specifications

| R No | Characteristics      | Specifications                                     |
|------|----------------------|--|
| 1.   | Appearance           | White to pale yellow hard flakes                   |
| 2.   | Odor                 | Mild, characteristic                               |
| 3.   | Acid Value           | $\leq 2$ mg KOH/g                                  |
| 4.   | Saponification Value | 170-185 mg KOH/g                                   |
| 5.   | Hydroxyl Value       | 155-165 mg KOH/g                                   |
| 6.   | Iodine Value         | $\leq 4$ g 12/100 g                                |
| 7.   | Melting Point        | 80-85 °C   |
| 8.   | Moisture Content     | $\leq 0.5\%$                                       |
| 9.   | Solubility           | Insoluble in water,<br>soluble in organic solvents |
| 10.  |                      |  |
| 11.  | Color (Gardner)      | $\leq 2$   |



# High Protein Castor Meal

## Application

- Organic Fertilizer
- Soil Conditioner
- Natural Pesticide
- Animal Feed
- Poultry & Aquaculture Feed Supplement
- Biogas Production
- Vermicomposting
- Raw Material for Bio-based Chemicals
- Substrate for Enzyme & Microbial Fermentation
- Mushroom Cultivation



## Technical Specifications

| R No | Characteristics                             | Specifications                              |
|------|---|---|
| 1.   | Appearance                                  | Coarse powder / flakes, brown to dark brown |
| 2.   | Odor  | Characteristic, pungent                     |
| 3.   | Oil Content                                 | ≤ 1.0%                                      |
| 4.   | Protein Content                             | 35-40% (high protein grade)                 |
| 5.   | Nitrogen (N)                                | 5.0-6.0%                                    |
| 6.   | Phosphorus (P <sub>2</sub> O <sub>5</sub> ) | 1.5-2.0%                                    |
| 7.   | Potassium (K <sub>2</sub> O)                | 1.0-1.5%                                    |
| 8.   | Moisture Content                            | ≤ 10%                                       |
| 9.   | Fiber Content                               | 8-12%                                       |
| 10.  | pH (5% solution)                            | 6.0-7.0                                     |
| 11.  | Solubility                                  | Insoluble in water, partly soluble in acids |
| 12.  | Toxicity                                    | Contains Ricin & Ricinine                   |



# Castor Seed Oil Cake

## Application

- Organic Fertilizer
- Soil Conditioner
- Natural Pesticide
- Animal Feed (detoxified)
- Mushroom Cultivation
- Biogas Production
- Industrial Raw Material



## Technical Specifications

| R No | Characteristics                             | Specifications                             |
|------|---|--|
| 1.   | Form  | Solid Cake/Powder                          |
| 2.   | Color                                       | Brown to Dark Brown                        |
| 3.   | Odor  | Pungent, Characteristic                    |
| 4.   | Nitrogen (N)                                | 4-5%                                       |
| 5.   | Phosphorus (P <sub>2</sub> O <sub>5</sub> ) | 1-1.5%                                     |
| 6.   | Potassium (K <sub>2</sub> O)                | 1-1.25%                                    |
| 7.   | Moisture                                    | Max 10%                                    |
| 8.   | Protein Content                             | 20-25%                                     |
| 9.   | Oil Content                                 | 8-10%                                      |
| 10.  | PH Value                                    | 5-6.5 (Slightly Acidic)                    |
| 11.  | Usage                                       | Fertilizer, Soil Conditioner, Biogas, etc. |



# Castor De-Oiled Cake

## Application

- Organic Fertilizer
- Soil Conditioner
- Natural Pesticide Repellent
- Animal Feed
- Biogas Production
- Vermicomposting
- Source of Plant Nutrients
- Industrial Enzyme Production
- Mushroom Cultivation
- Bio-based Chemicals Manufacturing



## Technical Specifications

| R No | Characteristics                             | Specifications                              |
|------|---|---|
| 1.   | Appearance                                  | Coarse powder / flakes, brown in color      |
| 2.   | Odor  | Characteristic, pungent                     |
| 3.   | Oil Content                                 | ≤ 1.5%                                      |
| 4.   | Protein Content                             | 30-35%                                      |
| 5.   | Nitrogen (N)                                | 4.0-4.5%                                    |
| 6.   | Phosphorus (P <sub>2</sub> O <sub>5</sub> ) | 1.5-1.8%                                    |
| 7.   | Potassium (K <sub>2</sub> O)                | 1.0-1.5%                                    |
| 8.   | Moisture Content                            | ≤ 10%                                       |
| 9.   | Fiber Content                               | 10-15%                                      |
| 10.  | pH (5% solution)                            | 6.0-7.0                                     |
| 11.  | Solubility                                  | Insoluble in water, partly soluble in acids |
| 12.  | Toxicity                                    | Contains Ricin & Ricinine                   |



# Castor Oil

## Packaging Details



### Packaging Type

### Material

### Net Weight

|             |                             |                      |
|-------------|-----------------------------|----------------------|
| MS Drum     | Mild Steel                  | 180 Kg               |
| HDPE Drum   | High-Density Plastic        | 50 Kg / 100 Kg       |
| Jerry Can   | HDPE                        | 5 Kg / 10 Kg / 25 Kg |
| IBC Tank    | Intermediate Bulk Container | 1000 Kg              |
| Bulk Tanker | SS/MS Tanker                | 15-20 MT             |

# Castor Flakes / Castor De-Oiled Cake



## Packaging Type

## Material

## Net Weight

PP / HDPE Bag

Woven sack with inner liner

25 Kg / 40 Kg / 50 Kg

Jumbo Bag (FIBC)

Polypropylene

500 Kg / 1000 Kg

Customized Packing

As per buyer requirement

On request



# Castor Oil (Flexitank / Flexi Bag)

| Packaging Type     | Material                                       | Net Weight             |
|--------------------|--|------------------------|
| Flexitank          | Multi-layered Polyethylene with Outer Woven PP | 20,000 - 24,000 Liters |
| Flexi Bag          | Food/Pharma Grade Polyethylene                 | 15,000 - 24,000 Liters |
| Customized Options | As per buyer requirement                       | On request             |

# Trusted Partner in Castor Oil & Derivatives

## About Us

With years of expertise in castor oil processing and derivatives, we specialize in delivering premium quality products for global industries. Our commitment to innovation, sustainable sourcing, and export standards makes us a reliable partner for businesses worldwide.

## Contact Us

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## Global Presence

