# *J-CHEM305*

## DESULPHURIZATION MATERIAL

## TYPICAL CHEMICAL AND PHYSICAL PROPERTIES

**A low density desulphurization absorbent for the removal of hydrogen sulphide and low molecular weight sulphur compounds from gaseous and liquid petroleum feedstock at elevated temperatures.**

1. MATERIAL DESCRIPTION

| | |
|---|---|
| Designation | ***J-CHEM305*** |
| Form | White or Yellowish Extrudate |
| Size | ∮4 × 4-15 mm |

2. TYPICAL COMPOSITION (%wt)

| | |
|---|---|
| Zinc oxide | 95 |
| Binder | 5 |

3. PHYSICAL PROPERTIES

| | |
|---|---|
| Bulk density | 1.10 - 1.30 Kg/l |
| Crush strength | >40 N/cm |
| Surface area | >30 m2/g |
| Pore volume | 0.35 - 0.40 ml/g |
| Attrition | <5% |
| Breakthrough S pickup(220℃) | ≥ 20% |
| Breakthrough S pickup(350℃) | ≥ 35% |

4. OPERATION CONDITION

| | |
|---|---|
| Vessel Height/Dia | >3.0 |
| Pressure | ～4.0 MPa |
| Temperature | 200～400℃ |
| Steam/gas ratio | 0～1 |
| Space Velocity | 1000～3000 $h^{-1}$ with gas feed<br>1～6 $h^{-1}$ with liquid feed |
| Outlet S content | ＜0.1ppm |

# *J-CHEM305Q*

## DESULPHURIZATION MATERIAL

## TYPICAL CHEMICAL AND PHYSICAL PROPERTIES

**A low density desulphurization absorbent for the removal of hydrogen sulphide and low molecular weight sulphur compounds from gaseous and liquid petroleum feedstock at elevated temperatures.**

1. MATERIAL DESCRIPTION

| | |
|---|---|
| Designation | ***J-CHEM305Q*** |
| Form | White or Yellowish Spheres |
| Size | ∮3 - 5mm |

2. TYPICAL COMPOSITION (%wt)

| | |
|---|---|
| Zinc oxide | 95 |
| Binder | 5 |

3. PHYSICAL PROPERTIES

| | |
|---|---|
| Bulk density | 1.20 - 1.30 Kg/l |
| Crush strength | >25 N/cm |
| Surface area | 30 - 40 m2/g |
| Pore volume | 0.35 - 0.40 ml/g |
| Attrition | <5% |
| Breakthrough S pickup(220℃) | **≥ 21%** |
| Breakthrough S pickup(350℃) | **≥ 35%** |

4. OPERATION CONDITION

| | |
|---|---|
| Vessel Height/Dia | >3.0 |
| Pressure | ～4.0 MPa |
| Temperature | 200～400℃ |
| Steam/gas ratio | 0～1 |
| Space Velocity | 1000～3000 $h^{-1}$ with gas feed<br>1～6 $h^{-1}$ with liquid feed |
| Outlet S content | ＜0.1ppm |

# *J-CHEM 314Q*

DESULPHURIZATION MATERIAL

TYPICAL CHEMICAL AND PHYSICAL PROPERTIES

Desulphurization absorbent for the removal of hydrogen sulphide and low molecular weight sulphur compounds from gaseous and liquid petroleum feedstock at elevated temperatures.

1. MATERIAL DESCRIPTION

| | |
|---|---|
| Designation | ***J-CHEM 314Q*** |
| Form | Spheres |
| Size | 3 - 5 mm |

2. TYPICAL COMPOSITION (%wt)

| | |
|---|---|
| Zinc oxide | 90 |
| Binder | 10 |

3. PHYSICAL PROPERTIES

| | |
|---|---|
| Bulk density | 1.35-1.45 Kg/l |
| Crush strength | >38 N/cm |
| Surface area | >30 m2/g |
| Pore volume | >0.3 ml/g |
| Attrition | <3% |
| Breakthrough S pickup(350℃) | **≥** 30% |

4. OPERATION CONDITION

| | |
|---|---|
| Vessel Height/Dia | >2.5 |
| Pressure | ～4.0 MPa |
| Temperature | 200～400℃ |
| Steam/gas ratio | 0～1 |
| Space Velocity | 1000～3000 $h^{-1}$ with gas feed<br>1～6 $h^{-1}$ with liquid feed |
| Outlet S content | ＜0.1ppm |

# *J-CHEM308*

## HIGH CAPACITY DESULPHURISATION MATERIAL
## TYPICAL CHEMICAL AND PHYSICAL PROPERTIES

A desulphurization absorbent for the removal of hydrogen sulphide and low molecular weight sulphur compounds from gaseous and liquid petroleum feedstock at elevated temperatures.

1. MATERIAL DESCRIPTION

| | |
|---|---|
| Designation | ***J-CHEM308*** |
| Form | Extrudate |
| Size | ∮4 × 4-15 mm |

2. TYPICAL COMPOSITION (%wt)

| | |
|---|---|
| Zinc oxide | 90.0 |

3. PHYSICAL PROPERTIES

| | |
|---|---|
| Bulk density | 1.15 - 1.25 Kg/l |
| Crush strength | >38 N/cm |
| Surface area | >40 m2/g |
| Pore volume | >0.4 ml/g |
| Attrition | <3% |
| Breakthrough S pickup(350℃) | ≥ 30% |

4. OPERATION CONDITION

| | |
|---|---|
| Vessel Height/Dia | >2.5 |
| Pressure | ～4.0 MPa |
| Temperature | 80～400℃ |
| Steam/gas ratio | 0～1 |
| Space Velocity | 200～5000 $h^{-1}$ with gas feed |
| Outlet S content | ＜0.06ppm |