

مشخصات کاتالیست های شارژ شده تیوب های ریفرمر واحد احیا مستقیم پارس فولاد سبزوار

مشخصات فنی کاتالیست های ریفرمر						
type of catalyst	Catalyst form	Bulk Density (Kg/Ltr)	Crush strength (Min. Avg Kg DWL)	Catalyst Size		
				Diameter(mm)	Height(mm)	Hole(mm)
C.11.9.05 RWH, High-active Reforming Catalyst	Ribbed rings with holes (9 ribs with 6 holes)	1.00 – 1.20	110	33	18	6
C.11.7.02 RR, MgO Based Semi-active Reforming Catalyst	Ribbed rings(9 ribs)	0.950 – 1.150	120	30	28	11
CS.305, Inert	Rings	1.40 – 1.60	250	32	25	18

1. Typical Specifications of CS 305, Inert

❖ Catalyst form	Rings
❖ Chemical Composition(weight % on dry basis)	
• MgO Content	0.5 Max.
• CaO + K ₂ O Content	1.5 Max.
• Fe ₂ O ₃ Content	0.25 Max.
• SiO ₂ Content	0.1 Max.
• TiO ₂	2.5 Max.
• Al ₂ O ₃	Balance
❖ Bulk Density(Kg/Ltr)	1.40 – 1.60
❖ Crush strength(Min. Avg Kg DWL)	250
❖ Below 150 Kg	10% Max.
❖ Catalyst size	
• Diameter(mm)	32
• Height(mm)	25
• Hole(mm)	18

2. Typical Specifications of C.11.7.02 RR, MgO Based Semi-active Reforming Catalyst

❖ Catalyst form	Ribbed rings(9 ribs)
❖ Chemical Composition(weight % on dry basis)	
• LOI at 550 °C	1.0 Max.
• Ni	6.0 ± 1.0 Max.
• Ca	3.20 – 7.50
• Al ₂ O ₃	2.20 – 5.00
• Fe ₂ O ₃	2.0 Max.
• SiO ₂	2.0 Max.
• Nitrate (NO _x)	0.1 Max.
• MgO	Balance
❖ Bulk Density(Kg/Ltr)	0.950 – 1.150
❖ Crush strength(Min. Avg Kg DWL)	120
❖ Below 75 Kg	5% Max.
❖ Specific Surface area(m ² /g)	2.5 – 7.1
❖ Pore Volume(ml/g) > 35 A°	0.07 – 0.18
❖ Catalyst size	
• Diameter(mm)	30
• Height(mm)	28
• Hole(mm)	11

3. Typical Specifications of C.11.9.05 RWH, High-active Reforming Catalyst

❖ Catalyst form	Ribbed rings with holes(9 ribs with 6 holes)
❖ Chemical Composition(weight % on dry basis)	
• LOI at 550 °C	0.5 Max.
• Ni	12 ± 1 Max.
• SiO ₂	0.1 Max.
• Na	0.15 Max.
• Fe	0.15 Max.
• Nitrate (NO _x)	0.1 Max.
• S	0.05 Max.
• Al ₂ O ₃	Balance
❖ Bulk Density(Kg/Ltr)	1.00 – 1.20
❖ Crush strength(Min. Avg Kg DWL)	110
❖ Below 40 Kg	0% Max.
❖ Specific Surface area(m ² /g)	2.0 – 4.5
❖ Pore Volume(ml/g) > 35 A°	0.10 – 0.25
❖ Catalyst size	
• Diameter(mm)	33
• Height(mm)	18
• Hole(mm)	6