

# WNZS-1 Hydrofining Catalyst

## 1. Characteristics:

WNZS-1 Hydrofining Catalyst takes promoted alumina as carrier material with such metal components and auxiliaries as tungsten and nickel, featuring good activity of HDS, HDN aromatics saturation and hydrodecolloid in low pressure, and having high resistance to compression and attrition. It can be reused after regeneration. This catalyst contains no easily lapsed active components, so it won't corrode equipment and have good activity stability.



## Application:

WNZS-1 Hydrofining Catalyst can be used in the hydrofining of poor secondary processed gasoline and diesel. Under medium and low operating pressure, catalyst WNZS-1 does very well in hydrofining all sorts of FCC diesel and coked diesel to produce high quality diesel oil with low sulphur and low aromatics.

## Physical-chemical properties

Item	Target
appearance	Trilope extrudates
Particle size, mm	Dia. 1.6x5-15
Crushing strength, N/cm	Min 150
Surface area, m <sup>2</sup> /g	Min 120
Pore volume, ml/g	Min 0.30
Chemical composition	WO <sub>3</sub> -NiO-promoter-alumina
Packing density, kg/l	0.80 to 0.85

## Activity index

Process parameters	Hydrogen partial pressure, Mpa	temperature, Deg.	Space velocity, hr <sup>-1</sup>	Hydrogen to oil ratio, V/V
	6.0	360	2.0	800
Raw material	Daqing coked diesel			
Processed oil	dealkaline nitrogen rate min 90%			

## 5. Reference operating condition

Process parameter	Hydrogen partial pressure (Mpa)	Inlet reaction temperature(°C)	Space velocity (hr <sup>-1</sup> )	Hydrogen to oil ratio(V/V)
FCC diesel of xinjiang, shenli and guanshu oil	3.0-6.0	260-300	1.0-2.0	400-600
FCC diesel of guanshu oil blending with residue oil	3.0-6.0	270-310	1.0-2.0	400-600
Daqing coked diesel	3.0-6.0	280-320	1.0-2.0	500-800
Shenli coked diesel	6.0	290-330	1.0-1.5	600-800