

# REFORMING CATALYSTS

## INTRODUCTION

SINACO is committed to meet the customers' operational success with our high performance refinery catalysts. We supply reforming solutions to meet customers' needs for high-octane, low-sulfur gasoline through highly effective, advanced and developed CCR catalyst.

## CCR CATALYST

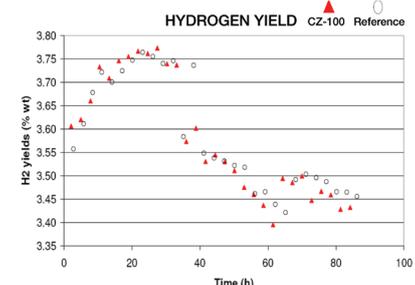
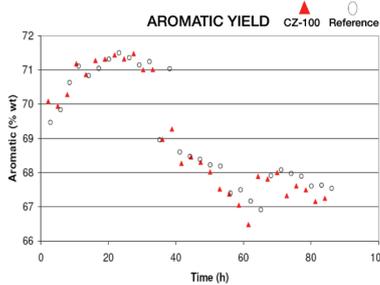
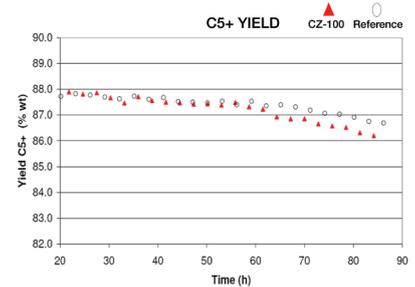
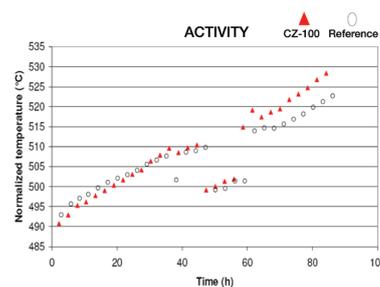
To meet the demanding requirements of the customers' operating goals, we offer a wide range of CCR reforming catalysts for cyclic, fixed-bed and continuous reforming units. Our optimized, high-performance CCR reforming catalyst has high activity and stability to provide higher aromatics, hydrogen and C5+ yields which resulted in higher profit gain.

## CZ-100 SERIES

Our CZ-100 series CCR reforming catalysts are developed to achieve lower platinum content, higher mechanical strength, better chlorinate maintenance and higher activity & stability.

Designated as high activity reforming catalyst, CZ-100 was evaluated in pilot plant test by a global CCR Reforming Licensor in 2010 and achieved similar return yields as per the global CCR Reforming Licensor's catalyst. The comparison test was performed under isoRON condition where a gas analysis is done every 40mins and the RON is estimated on each reactor; and the temperature is increased with the time on stream (TOS) to compensate the catalyst deactivation and to keep RON constant.

Properties	CZ-100S	CZ-100A
Pt, m%	0.28±0.01	0.28±0.01
Sn, m%	0.32±0.03	0.32±0.03
Cl, m%	1.20±0.20	1.20±0.20
Bulk density, g/ml	0.56±0.02	0.65±0.02
Specific surface, m <sup>2</sup> /g	200±20	200±20
Crush strength, N/particle	⋯ 40	⋯ 50
Particle distribution φ	⋯ 98	⋯ 98
1.4~2.0mm%		
Supply Status	Reduced	Reduced



## TECHNICAL SERVICE

Our Technical Support Team provides report that is made available to all of our customers. These reports record the refinery management with an ongoing systematic evaluation of their FCC/DCC operating conditions together with the impact of the catalyst to support the strategic direction of the FCC/DCC management. Our service covers e-catalyst analysis with feedback within 10 working days, on-site technical support and 48 hours respond time for solution to all reported technical issue.

