

## Certificate of Analysis

HySA-K40 Pt(42.77wt%)/Ketjenblack® EC-300J

Specification	HySA-K40
Batch No.	FCKU4006
<b>Pt Loading and Moisture Analysis*:</b>	
Moisture (mass%)	3.51 ±0.38
Pt Loading on Moist Sample (mass%)	42.77 ±0.43
Dry Pt Loading (mass%)	44.33 ±0.43
Hydrolysable Chloride (ppm):	52
<b>Total Trace Metal Impurities (ppm):</b> (Al, Ca, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Ti, V, Zn)	588
XRD Pt Crystallite Size - Scherrer Pt(220) (nm):	2.6
TF RDE Pt Surface Area - H <sub>ads</sub> Charge (m <sup>2</sup> /g Pt):	112.8 ±1.9

\*Moisture content of catalyst may vary depending on environment in which it is used and stored.

\*\*Full descriptions of measurement protocols available upon request.