

## CATALYST GRADE RESINS

PRODUCT NAME	INDION 140	INDION 130	INDION 190
Applications	Catalyst for organic reactions like esterification etc.	Catalyst for organic reactions like esterification and alkylation reactions.	Premium grade catalyst for specialized applications such as MTBE
Resin Type	Macroporous Strong Acidic Cation	Macroporous Strong Acidic Cation	Macroporous Strong Acidic Cation
Matrix Type	Styrene DVB	Styrene DVB	Styrene DVB
Functional Groups	- SO <sub>3</sub> <sup>-</sup>	- SO <sub>3</sub> <sup>-</sup>	- SO <sub>3</sub> <sup>-</sup>
Standard Ionic Form	H <sup>+</sup>	H <sup>+</sup>	H <sup>+</sup>
Particle size range – mm	0.42 – 1.2	0.42 – 1.2	0.42 – 1.2
% Moisture	≤ 1	≤ 1	≤ 1
Max. Operating Temperature ° C	120	150	150
Total Exchange Capacity, meq/g	4.8	4.8	4.7
Volume change %	-	-	-

PRODUCT NAME	INDION 770	INDION 860
Applications	Catalyst for manufacture of butyl acetate, ethylacetate, etc.	Catalyst in aldolization reaction.
Resin Type	Gel Strong Acidic Cation	Macroporous Weak Base Anion
Matrix Type	Styrene DVB	Styrene DVB
Functional Groups	- SO <sub>3</sub> <sup>-</sup>	- NR <sub>2</sub> - N <sup>+</sup> R <sub>3</sub>
Standard Ionic Form	H <sup>+</sup>	Free Base
Particle size range – mm	0.35 – 1.2	0.3 – 1.2
% Moisture	63 – 66	52 – 56 (Cl <sup>-</sup> )
Max. Operating Temperature ° C	120	60
Total Exchange Capacity, meq/ml	1.4	1.4
Volume change %	-	Free Base to Cl <sup>-</sup> 15 to 25