Nitrogen-doped carbon (NDC) with high specific surface area has been attracting a lot of attention as an oxygen reduction catalyst for a metal-air battery, because of its low material cost and high activity. In order to increase the number of oxygen reduction site, the microstructure of carbon should be well designed. So far, we have proposed a gas diffusion electrode which can withstand a current density of 500 mA cm^{-2} by using NDC derived from chitosan. Here, in this paper, we focused on the activation process to control the microstructure of NDC, and aimed to elucidate the effective factors in the activation of NDC for controlling the microstructure of NDC. NDC was prepared by the thermal decomposition of a chitosan in nitrogen atmosphere at elevated temperature. In this process, to activate the carbon surface, Zn chloride was added into precursor solution, and then the obtained solution was calcined at the desired temperature in humid nitrogen atmosphere. From the relationship between surface microstructure and activation condition, it was found that the specific surface area is increased particularly with increasing calcination temperature. In addition, the specific surface area of NDC strongly depended on the amount of activator. Furthermore, it was clear that there is a tradeoff between the specific surface area and nitrogen content of NDC. In addition, by optimizing the activation condition of NDC, the obtained NDC exhibited excellent oxygen reduction activity as compared with commercial Pt/C.