

# Activated Carbon

Activated Carbon (AC) is the product obtained from coco shell charcoal through activation. It is dark in color with pores that are extremely small, allowing high capability for absorption.<sup>18</sup>

Activated Carbon from coconut shell provides higher purity in ash than other based carbons.

AC is a very fine form of carbon used in various industrial processes such as the removal of unwanted colors and odors, recovery of solvent vapors, purification of water, and removal of obnoxious, toxic, or unwanted gases and vapors.<sup>19</sup>

Many importing countries and industries prefer activated carbon from coconut shell due to its high degree of surface reactivity, universal adsorption effect, and favorable pore size making it the best form of AC with highest absorbency.<sup>20</sup>

AC is fast becoming the Philippines' major export, a \$100-million revenue-generating industry. The traded commodity, which is made from coconut shells, has been posting a compound annual growth rate of 17.92 percent since 1991.<sup>21</sup>

Demand comes from markets that use AC for industries that cater to health care, mining, water filtration, air purification and others. At the consumer level, activated carbon is used for health products such as toothpaste and toothbrush, and skincare products, including facial masks and creams.

In 2018, the Philippines exported 76,992 metric tons of AC, which was valued at \$135.187 million, the third straight year that total export receipt was above \$100 million. Germany was the top buyer of Philippine-manufactured AC.

List of Activated Carbon Registered Processors in the Philippines (2016) can be accessed through this link: <http://pca.gov.ph/pdf/tradeDirectory/2016/ActivatedcarbonTD.pdf>



<sup>18</sup> Product Information, Philippine Coconut Authority, [www.pca.gov.ph](http://www.pca.gov.ph). Accessed on 25 May 2020.

<sup>19</sup> "Direct production of activated carbon from coconut shell through chemical activation with ammonium chloride [2001]", Movillon, J.L. (Philippines Univ. Los Banos, College, Laguna (Philippines). Coll. of Engineering and Agro-Industrial Technology Valencia, S.A. Demafelis, R.B. Matibag, E.V., published in Food and Agriculture Organization's website, <https://agris.fao.org>. Accessed on 04 June 2020.

<sup>20</sup> Industry Profiles, DTI-Export Marketing Bureau, [www.tradelinephilippines.dti.gov.ph](http://www.tradelinephilippines.dti.gov.ph). Accessed on 25 May 2020.

<sup>21</sup> "Activated carbon: The new ember warming up PHL economy", Cai U. Ordinario, Jasper Emmanuel Y. Arcalas & Manuel T. Cayon, published on 2 May 2019, [www.businessmirror.com.ph](http://www.businessmirror.com.ph). Accessed on 04 June 2020.