

CLEANROOM & AIRBORNE CONTAMINANT CONTROL

In semiconductor manufacturing, contamination control is critical to ensuring product quality, yield, and reliability. Contaminants, whether particulate, chemical, or biological can severely disrupt fabrication processes, leading to costly defects and operational inefficiencies.

Activated carbon plays a key role in maintaining cleanroom integrity by effectively adsorbing airborne contaminants such as acids (such as SO₂, HCl, HBr), bases (NH₃, NMP, amines), silicon-containing compounds (HMDSO, TMS) and volatile organic compounds (VOCs). These pollutants, if left unchecked, can interfere with delicate chemical reactions and compromise the electrical properties of semiconductor devices.

Integrated as part of cleanroom air filtration systems, Haycarb's high-performance activated carbon solutions help manufacturers meet cleanroom standards by enhancing air purity, protecting sensitive equipment, and supporting a controlled production environment. Engineered for high adsorption capacity and reliability, our products are essential for maintaining uptime, reducing yield losses, and safeguarding the operational excellence of advanced semiconductor facilities.



PRODUCT GUIDE

Haycarb Product Series	Target contaminant	Adsorption Capacity**
RCIU 1000	Organic vapour adsorption	***OV (BENZENE) : p/ps* (0.9) 30 - 55 % by wt p/ps* (0.1) 25 - 50 % by wt
RCIU 2000	Organic vapour + H ₂ S/ Cl ₂ / HCL adsorption	H ₂ S : 25 - 50% by wt (Granules) 25 - 75% by wt (Pellets)
RCIU 3000	Organic vapour + SO ₂ adsorption	SO ₂ : 10 - 25% by wt
RCIU 4000	Organic vapour + Ammonia adsorption	NH ₃ : 25 mg/g

Tested as per HC/STP for 12x20**

p/ps* - relative saturation

Particle sizes available: 4X8, 6X12, 8X16, 12X20, 30X60, 4mm, 3mm and 2mm pellets and custom sizes can be provided.

Effective OV (Benzene) removal even at high humid conditions (98% RH)***

