



# **BAC** BAC - Bead-shaped Activated Carbon since 1972

## Bead-shaped Activated Carbon

Kureha bead-shaped activated carbon (BAC) is a highly spherical activated carbon with petroleum pitch as its raw material. In addition to intrinsically having the absorption performance of activated carbon, BAC has various features.



### ■ BAC features

- ① Small particle, high-fill capability
- ② High flowability
- ③ High purity, low dust
- ④ High strength, high wear resistance
- ⑤ Narrow particle size distribution



### ■ BAC production method

BAC delivers a stable quality product through an integrated production from the raw material pitch. Additionally, BAC's superior characteristics derive from the usage of high grade pitch, bead formation that does not use a binder, and uniform infusibilization and activation while flowing.

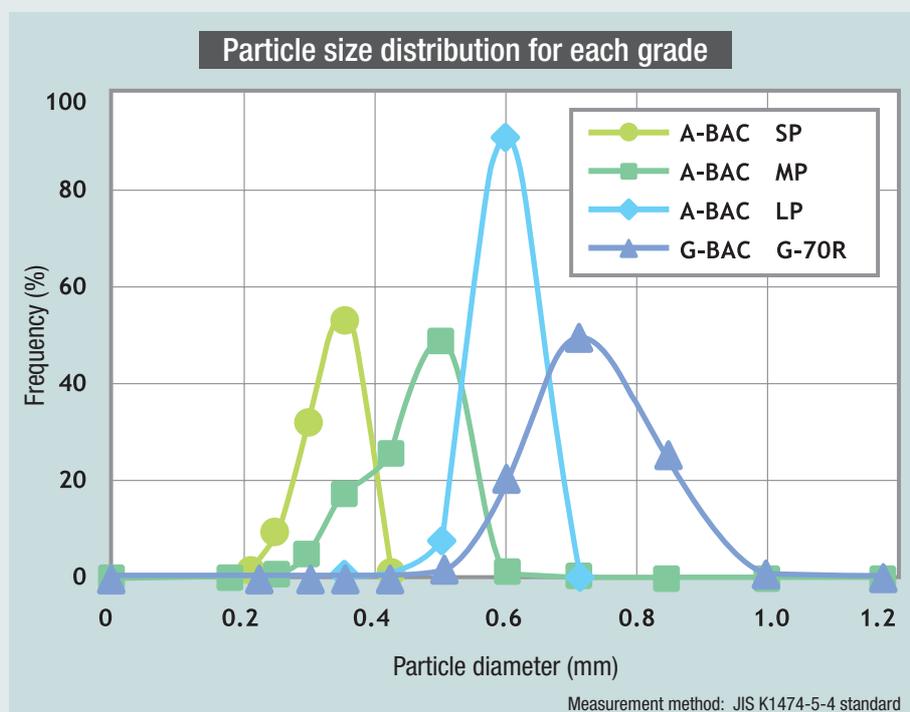


## ■ BAC Product Specifications

### ■ BAC grade

BAC may be classified into 4 grades based on average particle size

Property		A-BAC SP	A-BAC MP	A-BAC LP	G-BAC G-70R	
Particle diameter	Average particle size	mm	≤0.40	0.50±0.05	0.60±0.05	0.70≤
	0.25 mm and below	wt %	—	≤5	—	—
	0.71 mm and above	wt %	—	≤10	—	—
	0.30 and below	wt %	—	—	≤5	—
	0.85 mm and above	wt %	—	—	≤10	—
	0.6 mm and below	wt %	—	—	—	≤5



**Narrow particle size distribution**

### ■ BAC packing

The standard packing is a 20 kg paper sack and a 600 kg flexible container

※ Please inquire for details regarding other grades, etc.

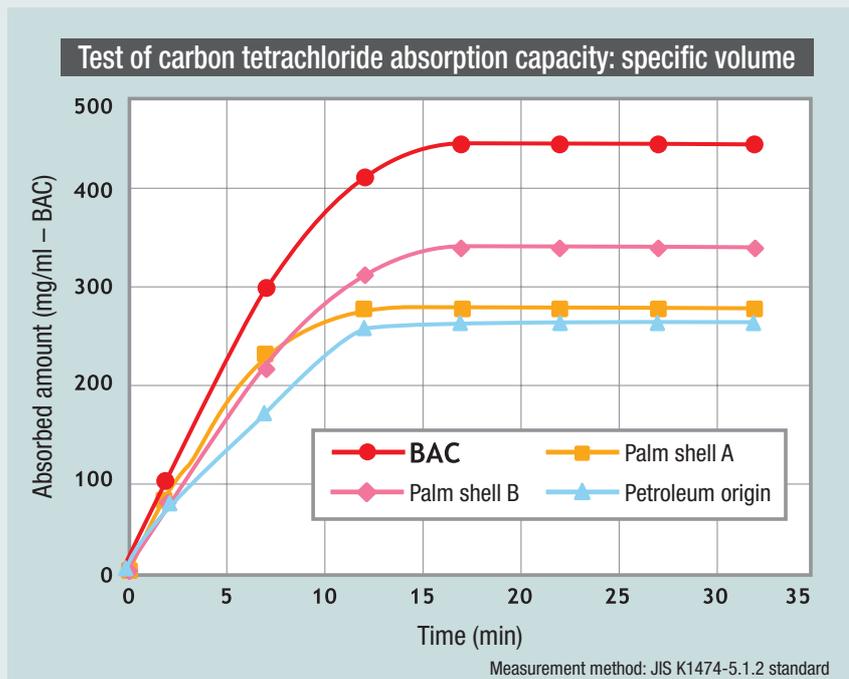
## ■ BAC Performance

### ■ Characteristic values

Item	Characteristic value
Shape	Sphere
Fill density	approx. 0.6 g/ml
Specific surface area*	1,100 – 1,300 m <sup>2</sup> /g
Hardness	95% or higher
Reduction on drying	5% or less
Iodine absorption capacity	1,200 – 1,350 mg/g
Carbon tetrachloride absorption capacity	70 – 85%
Caramel decoloring power	80 – 95%
Methylene blue decoloring power	220 – 270 ml/g
ABS value	50 or less
Phenol value	60 or less
Residue on ignition (ash)	0.05% or less

\* Measurement method: BET method

### ■ Characteristic values



Good absorption capacity due to its unique shape

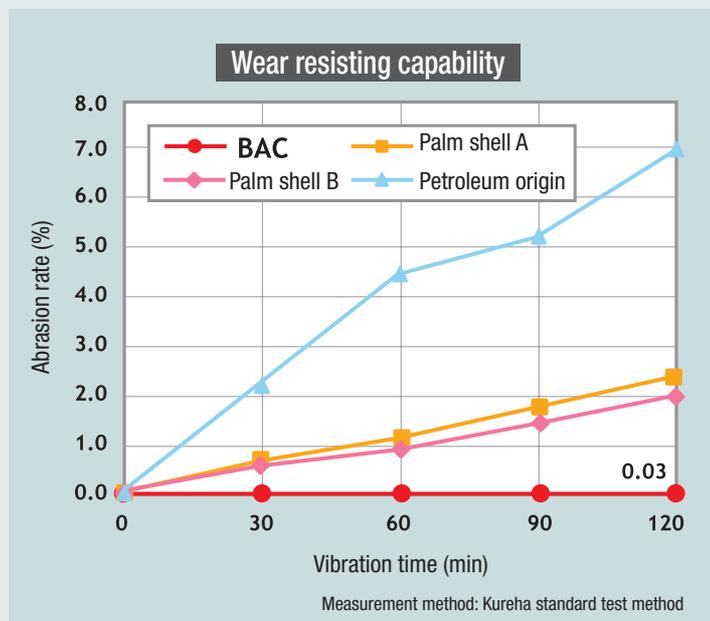
## Cleaning capability



Low dust

High purity

## Wear resisting capability



High purity, high wear resistance

## Angle of repose $\theta$

BAC	Palm shell A	Petroleum origin
25°	40°	30°

Measurement method: Kureha standard test method



BAC

Palm shell A

High flowability

## ■ BAC Usage Results

### 1. Solvent recovery

There are various organic solvents in the world of industry. On the one hand, products of superior quality have been brought forth, while on the other hand, solvents are discharged into the atmosphere and have become a serious societal problem. Because of this, Kureha Engineering (Ltd.), which is a Kureha group company, has commercialized fluidized bed solvent recovery equipment (Product name: GASTAK), and has delivered over 400 units to electrical, chemical, automotive, and other industrial plants abroad and domestically. The GASTAK has been getting good reviews as equipment for energy saving, solvent recovery without water discharge, and deiodination.



GASTAK

### 2. Gas treatment of filters and the like

Taking advantage of low pressure losses resulting from BAC's high purity, low dust, and bead shape, BAC is being adopted as an absorption material for filters in semiconductor clean rooms that call for strict cleanliness, absorption material for gas treatment of electronics equipment, and filters that clean the interior environment of automobiles.

### 3. Water treatment

Activated carbon adsorption treatment, which is a type of water treatment, has come to be regarded as necessary in recent years with the contamination of water coupled with the tightening of regulations. And, the demand for activated carbon is increasing. Among activated carbon absorption treatments, the removal efficiency of the fluidized bed method is superior. BAC has longer than a 10 year record of delivering products to water purification plants that are adopting this fluidized bed method. Additionally, making the most of its features of high purity, low dust, and high wear resistance, and the like, BAC is also being used in purified water production equipment and waste water treatment equipment.



Water treatment equipment

### 4. Other

- Absorption material for use in purification of chemical products
- Absorption material for catalyst and carrier use
- Collector material for gas analysis
- Packing material for gas chromatographs
- Absorption material for insoles
- Parts for sterilizing equipment.