

## IPC CATALYST FOR PHOSGENE GENERATORS



**Buss ChemTech AG is well known for its dynamic Phosgene Generator offers a novel patented catalyst for the production of high-purity phosgene. Such a catalyst reduces the CCl<sub>4</sub> content in phosgene significantly and generates considerable savings for all phosgene producers.**

### **Product Characteristics**

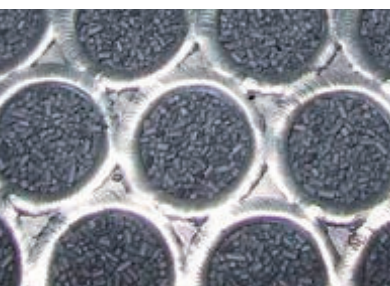
The IPC catalyst consists of highly porous synthetic carbon granules with predominantly mesoporous structure. It has an extremely good abrasion resistance of  $\leq 0.3-0.1$  %/min. The pore volume for pores  $\leq 1500$  Å is in the range of  $0.53-0.67$  cm<sup>3</sup>/g and the ash content lies below 1 weight %. Its exceptional thermal stability allows the use in strongly oxidative media as during the formation of phosgene from CO and Chlorine.

### **Product Advantages**

Compared to other activated carbons used for the production of phosgene, the crushing strength is significantly higher which allows handling without dust contamination of personnel and environment and it has a high ignition resistivity. Because IPC is produced from gaseous hydrocarbon feedstock, it is of high chemical purity

compared to carbons based on wood coal, coconut or other natural coals. The most severe problem in the production of phosgene is the formation of carbon tetrachloride in considerable amounts. Researchers discovered that the use of IPC as the catalyst allows the content of CCl<sub>4</sub> in phosgene to be decreased by more than 10 times and the life time is significantly longer compared to conventional activated carbon catalysts.

Due to its high purity and hence high activity, the excess CO during the formation of phosgene can be reduced to a minimum without loss in phosgene quality like no increase in chlorine. This leads to a high-quality phosgene suitable for the production of high-grade polycarbonates, isocyanides as well as high-value intermediates for pharmaceutical and other industries without further purification and represents a high potential in saving.





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### Client Benefits

- Considerable investment and operation costs can be saved as there is no need for additional units for purification of  $\text{COCl}_2$  from  $\text{CCl}_4$
- Savings due to the reduction of CO excess i.e. in the range of 60,000 US \$/y for a 10 t/h Phosgene Generator, CO excess reduced from 4 vol% to 2 vol%
- Savings in plant operation costs due to enhanced life time and hence less shut-down frequency and less production loss
- Potential of capacity increase due to higher productivity of IPC
- Higher earnings due to higher value of phosgenation products i.e. high-grade polycarbonates, MDI etc.
- Compliance with the treaty of Montreal regarding the reduction of ozone decomposing substances
- Proven track record on an industrial scale

Even more benefits will be found if you invite us to an onsite assessment or if you consider using a Buss Phosgene Generator, allowing you to produce phosgene without any intermediate storage.

Are you interested? Contact us in order to obtain further information about your potential for savings with the novel IPC catalyst in your phosgene production process.

