



Coated and Bonded Abrasives – Explained

➤ ***The abrasives market***

For the vast majority of all industrially manufactured products, abrasive operations are crucial stages of the production process for preparing and finishing surfaces. sia Abrasives estimates the total market volume for abrasives used in all these processes at approximately CHF 8 billion per annum.

➤ ***Coated and bonded abrasives markets***

Abrasives are generally distinguished as being either coated or bonded. sia Abrasives estimates the total worldwide volume of the coated and bonded abrasives markets at approximately CHF 4 billion per annum each.

➤ ***Main difference between coated and bonded abrasives***

The difference between coated and bonded abrasives is essentially their pliability. Unlike bonded abrasives, coated abrasives conform to the shape of the workpiece.

➤ ***Coated and bonded abrasives complement each other***

With a few exceptions, coated and bonded abrasives complement each other in an abrasive process. This means they are not competing products, but are each used for specific abrasive operations.

➤ ***Advantages of coated abrasives over bonded abrasives***

- Low noise emissions and vibrations using hand-held machines
- Fast tool change and low setup costs
- Little fine dust produced because material is removed from the workpiece and not the abrasive
- Conformability to the geometry of the workpiece being machined (curves and contours etc.)
- Constant grain geometry with electrostatically oriented grain tips
- Clearly structured range of products for widely diverse applications

➤ ***Economic advantages for coated abrasives manufacturers***

- Virtually no cluster risks because of the broad customer base in industrial markets
- High entry barriers for manufacturers due to costly investments
- Short delivery periods and high inventory turnover due to highly standardized manufacturing
- Manageable number of coated abrasives manufacturers (approx. 70; bonded abrasives: approx. 1,000)

The sia Group based in Frauenfeld ranks among the world's top three suppliers of coated abrasives. It develops, manufactures and markets complete abrasive systems tailored to specific requirements and applications for surface preparation and finishing of all kinds. This commitment has made sanding and grinding into true surface technologies. Employing some 1,000 people worldwide, sia Abrasives posted net sales of CHF 252.1 million and operating income (EBIT) of CHF 24.7 million for 2004. sia Abrasives Holding AG is listed on SWX Swiss Exchange and generates more than 90% of its sales outside Switzerland.