

Safety Recommendations for Grinding Tools

**The safety recommendations in this brochure should be adhered to by all users in the interest of your own safety.
Please print and give to the user!**

General Safety Measures

Incorrect use of grinding tools is very dangerous.

- Fundamentally, observe the instructions on the grinding tool and grinding machine.
- Make sure that the abrasive wheel is suitable for the respective application.
Before using each time, check the abrasive wheel for signs of damage.
- Observe the instructions for correct operating and storing of the grinding tool..

Make sure that you know the possible hazards when using grinding tools and observe the recommended safety recommendations:

- Body contact with the grinding tool at operating speed
- Injuries caused by failure of the grinding tool during use
- Grinding particles, sparks, gases and dust generated during grinding
- Noise
- Vibration

Only use grinding tools that conform to the highest safety standards.

These products carry the respective number of the EN standard and/or the "oSa" Mark:

- EN 12413 for abrasive wheels made from bonded abrasives
- EN 13236 for abrasive wheels with diamond or boron nitride
- EN 13743 for coated abrasive products (vulcanized-fibre abrasive wheels, lamella abrasive wheels,
- flapped-disk abrasive wheels and lamella abrasive pencils)

Never use a grinding machine that is not serviceable is or has defective components.

Employers should carry out a risk assessment of all grinding processes, in order to adopt the suitable respective safety measures. Make sure that your employees are sufficiently trained to carry out their duties.

This brochure only contains the most important safety recommendations. For further information about the safe use of grinding tools, contact the Association of German Abrasive Industry for comprehensive safety instructions.



Phone 0228 – 635587
Fax 0228 – 635399

Member of FEPA
www.fepa-abrasives.org

IMPORTANT NOTE

All effort is made to make sure that the information in This brochure is correct and up to date. However, no responsibility is accepted for errors, omissions or consequential loss
© FEPA

Theo Förch GmbH & Co. KG

Theo-Förch-Straße 11
74196 Neuenstadt
Phone 07139 - 95-180

Email info@foerch.de
www.foerch.com

SAFETY MEASURES AGAINST POSSIBLE HAZARDS

Body contact with the abrasive product

- When using grinding tools, the greatest caution and care is necessary. Tie back long hair and do not wear loose clothing, ties and jewellery.
- Prevent inadvertently switching on the machine before clamping or replacing the abrasive disc. If necessary, disconnect the machines from the power supply.
- Never dispel with the safety equipment on the machines and make sure that they are serviceable and safely fitted before you switch on the machine.
- If the machine or workpiece is held in the hand, always wear gloves and applicable clothing.
- It is recommended to wear gloves of a minimum safety class in accordance with EN 388 Category 2.
- After switching off the machine, make sure that this has completely stopped before you leave it unattended.

Injury through failure of a grinding tool

- Operating grinding tools requires the greatest of caution, because these can be easily damaged. Before use you should check all products for signs of damage.
- Grinding tools should be stored to prevent damaging influences such as moisture, frost and large temperature deviations, as well as mechanical damage.
- Coated abrasive products should be stored at 18-22° C and 45-65% relative air humidity.
- Abrasive belts should be stored on a rod or hook of minimum diameter of 50 mm.
- Never use the grinding tools after the expiry date. If there is no expiry date given, observe the shelf-life of the following products: Plastic and schellac-bonded products 3 years; Abrasive discs with rubber bond 5 years; ceramic-bonded abrasive discs 10 years.
- Observe the warning or safety instructions on grinding tools or the packaging



Not permitted for freehand and hand-held grinding

Use permitted only in enclosed working area



Not permitted for wet grinding



Observe the safety recommendations



Not permitted for side grinding



Wear eye protection



Do not use if damaged



Wear ear protection



Only permitted in conjunction with a supporting disc



Wear gloves

Only permitted for wet section



Wear a dust mask

- Use a suitable grinding tool for the respective application. Never use an insufficiently identifiable tool.
- When clamping, observe the instructions on the label or grinding tool, e.g. for the direction of rotation or type of clamping.

- Never use force when clamping and carry out no modifications to the grinding tool.
- Never exceed the permitted maximum operating speed.
- Make sure that you use the applicable wheel flange and this is mechanically serviceable and free from foreign objects, such as e.g. grinding swarf.
- Where provided, use the inserts between the abrasive disc and wheel flange.
- Do not overtighten the clamping device.
- Each time after clamping, operate at the operating speed, with correctly installed protective cover, for 30 seconds. Hold the machine in a position so that in the event of a failure, the failed parts cannot strike you.
- Never remove the protective covers from machines and make sure that they are serviceable and correctly installed.
- The workpiece must be securely and correctly clamped and the workpiece support correctly and firmly adjusted.
- Only start the machine when there is no contact between the workpiece and grinding tool.
- Prevent damage to the abrasive disc through applying force or impacts and heating.
- Only grind using the designated area of the grinding tool.
Do not grind using the edges of the grinding belt, preferably use the middle of the belts.
- Prevent clogging and irregular wear, in order to ensure efficient operating performance of the grinding tool. If necessary, dress regularly.
- After switching off, the machine should stop on its own accord, without use of pressure on the surface.
- Stop the supply of coolant before the machine stops and sling the excess coolant out of the abrasive disc.
- Abrasive belts that are not in use should not be tensioned.

Grinding particles, sparks, dust and vapours

- Inhalation of grinding dust can cause damage to the lungs.
- All dry grinding processes should be equipped with suitable extraction systems.
- Do not use grinding tools in the vicinity of flammable materials.
- For dry grinding, it is recommended to use respirators, in accordance with EN149, also if extraction systems are available.
- Protection covers or guards should be adjusted so that they guide sparks and grinding particles away from the body.
- Additional measures are necessary for the protection of persons who are in the vicinity.
- In principle, it is recommended to wear eye protection during all grinding processes. For freehand grinding, safety goggles or a face mask is recommended.
- It is recommended to wear eye protection of a minimum protection factor in accordance with EN166 Class B.
- Use an applicable grinding tool. An unsuitable product can generate excessive grinding particles and dust.

SAFETY MEASURES AGAINST POSSIBLE HAZARDS

Noise

- For all applications using a hand-held grinding machine or workpiece, it is recommended to wear ear protection, in accordance with EN352, independent of the noise level.
- Make sure that the grinding tool is suitable for the respective application. An unsuitable product can cause excessive noise.

Vibration

- Processes using a hand-held grinding tool or workpiece can cause injuries through vibration.
- Take immediate measures if, after a 10 minute period without a break using the grinding tool, a tingling, twinge or numb feeling occurs.
- Because vibration is sensed more when the working conditions are colder, it is advisable to keep the hands warm and to move the hands and fingers regularly. Use modern devices with a low vibration level.
- Make sure that your tool is fully serviceable; stop the machine if excessive vibration occurs get the machine checked.
- Use grinding tools of good quality and make sure that it is in a good mechanical condition.
- Keep the attachment flange and grinding disc in a good mechanical condition and replace this when worn or deformed.
- When using, do not hold the workpiece or machine too tight and do not apply excess pressure to the grinding tool.
- Prevent continuous operation of the grinding tool.
- Use an applicable grinding tool, because an unsuitable product can generate excessive vibration.
- Be aware of physical symptoms of vibration – as necessary, obtain medical advice.

DISPOSAL OF THE GRINDING TOOLS

- Worn out or defect grinding tools should be disposed of in accordance with regional or national regulations.
- For further information, refer to the Safety Data Sheets of your supplier.
- Be aware that grinding tools can become contaminated by the grinding process or abrasive grit.
- Grinding tools that have been disposed of should be destroyed, in order to prevent re-use.