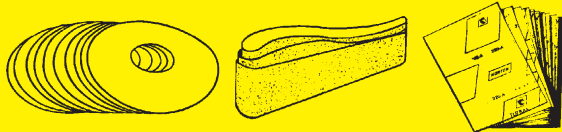


Flexible sanding products in general



Abrasive paper and abrasive cloth products – flexible abrasive products – are all based on three component parts: abrasive, backing and bonding agent.

Through combining these you can produce a comprehensive range of flexible abrasive products, which with regard to removal capacity, flexibility, strength, etc are adapted for special tasks.

Abrasive

Ceramic Aluminium oxide.

Norton's trademark Seeded Gel (SG) is one of Norton's newly developed abrasive for very taxing grinding operations. The structure of the self-sharpening abrasive grit brings about a large removal capacity and long life as well as colder grinding.

Zirconium/Aluminium oxide, Norton's trademark NORZON, is an abrasive with an extremely strong, hard abrasive grit resulting in a large removal rate and long life.

Aluminium oxide. Norton's trademarks ADALOX and METALITE, have a very high degree of purity, which is why aluminium oxide grit is harder and robust than natural abrasive grit.

Silicon carbide, Norton's trademark DURITE is the hardest of the abrasives usually used for flexible abrasive products and is the closest to boron carbide and diamonds in hardness.

Emery consists of natural corundum. This abrasive previously had a very broad usage, but now is only of limited significance.

Flint is a mineral related to quartz. This abrasive has increasingly been sidestepped for the artificial abrasives.

Grit size

The grit is produced by crushing followed by screening to accurately checked standard sizes no 12 – 1200 where 12 is the coarsest and 1200 the finest. The number series used consistently for all European manufactured products (P-graduation) differs from the American graduation of grit sizes 240 and finer. The table below shows a comparison. Grit sizes in the catalogue follow the European standard. American standard is stated by US before the grit size number.

Grit distribution

Normally a distinction is made between two different types of grit distribution. If the distribution is small, i.e. the grit lies close together, this is called a dense coating. The opposite is a sparse coating.

Dense coating is the most common. Sparse coating is primarily used for sanding materials that have a tendency to quickly clog the abrasive coating.

Backing

The backing for flexible abrasive products is divided into four main groups: paper, woven fabric, paper/woven fabric and fibre.

Paper. Abrasive paper products are manufactured in four sizes with different bending properties. The different designs are designated using the letters A, C, D, E and F, where A is the thinnest and most flexible and F the thickest and stiffest.

Woven fabric. Cotton fabric or polyester fabric are used for abrasive cloth in two main designs designated with the letters J, X and Y, where J is thin and flexible and X is thick and robust.

Fibre. This backing, which is primarily used for fibre discs, is extremely homogeneous, strong and resilient and therefore has the characteristics preferred for the taxing operations where discs are used.

Flexibility

In order for abrasive products to have the flexibility best suited for practical use they are treated according to a method called **flexing**. This method involves, the abrasive cloth being passed over rollers, which breaks the adhesive layer in a regular pattern of extremely fine cracks. By varying these crack patterns it's possible to obtain materials with different degrees of flexibility.

Association between different grit size designations

American grit sizes (US)	European grit sizes P	Coarseness-no (sandpaper emery cloth, steel wool) approx.	American grit sizes (US)	European grit sizes (P)	Coarseness-no (sandpaper emery cloth, steel wool) approx.
16	16	–	180	180	3
20	20	–	220	220	2
24	24	–	–	240	–
30	30	–	240	280	–
36	36	–	–	320	–
40	40	–	280	360	1
50	50	–	320	400	–
60	60	–	–	500	–
80	80	–	360	600	0
100	100	–	400	800	2/0
120	120	–	500	1000	3/0
150	150	–	600	1200	4/0