



Phenolic Resin in Backing Impregnation

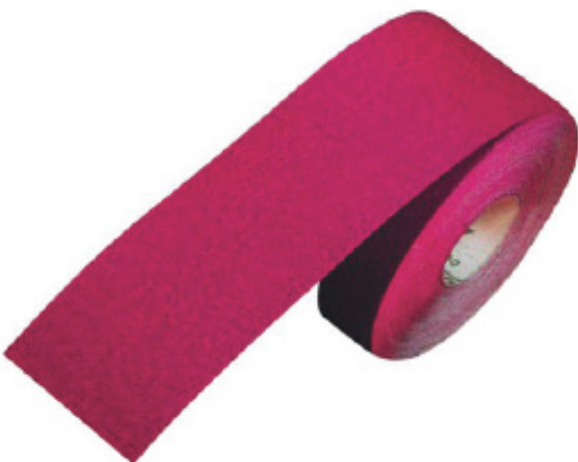
The Benefits of SSA-1299 in Coated Abrasives

Coated abrasives on cloth backings are used for nearly all types of sanding and grinding operations. There are several different types of cloth backings on the market. Some of them are classified as below:

- Light cotton backings for hand or orbital sanding (flexible and semi flexible)
- Light cotton backings for narrow belt grinding applications (flexible and semi flexible)
- Heavy cotton backings for narrow and wide belt applications (stiff, medium, flexible)
- Heavy polyester backings for narrow and wide belt applications (stiff)

The grey cloth is very porous, unstable in terms of dimensions, and has quite a rough surface. It is necessary to pre-treat the cloth by impregnation with resin or latex solutions giving the cloth the required properties, which are:

- Tightness (low porosity)
- Flexibility as required
- Strength
- Proper (low) elongation (elongation of grey cloth is normally too high)
- Durability of the backing
- Smooth surface (if needed for fine grits)
- Adhesion to make coat
- Water resistance



The backing material is normally impregnated with an initial impregnation layer, followed by optional facefill and backfill layers.

ASK Chemicals' SSA-1299 is an ideal resin for use in the initial impregnation layer, and is also the perfect **replacement for melamine resin** that is conventionally used.



SSA-1299 Characteristics

SSA-1299 is a water-based phenolic resol resin with excellent compatibility with rubber latex. It is completely soluble in water. The resin imparts good flexibility to the backing material.

SSA-1299 Properties

Viscosity (cP)	Solids	H ₂ O Tol. (%)	pH
800-1200	48-52	Soluble	9.5-10.5

The storage life is three months at 10°C.

Backing Materials

SSA-1299 is ideal for use with

- PET
- Cotton
- PES
- Cotton/PES blends

Typical Formulations

Cotton backing for flap disc and fiber disc

SBR latex	56
Acrylic latex	3
Antifoam	0.6
Wetting agent	0.5
SSA-1299	10
Water	30

Cotton backing for heavy-duty belt

SBR latex	56
Acrylic latex	9
Antifoam	0.6
Wetting agent	0.5
SSA-1299	4
Pigment	1
Water	29

Curing Schedule

The impregnated backing material is dried by passing through an oven for about two minutes. Typical zone settings would be:

Zone 1	90°C
Zone 2	110°C
Zone 3	110°C
Zone 4	120°C



What this means for you

If a low-cost alternative to melamine resin in backing impregnation is desirable, SSA-1299 will provide a flexible, water-soluble alternative with comparable attributes.