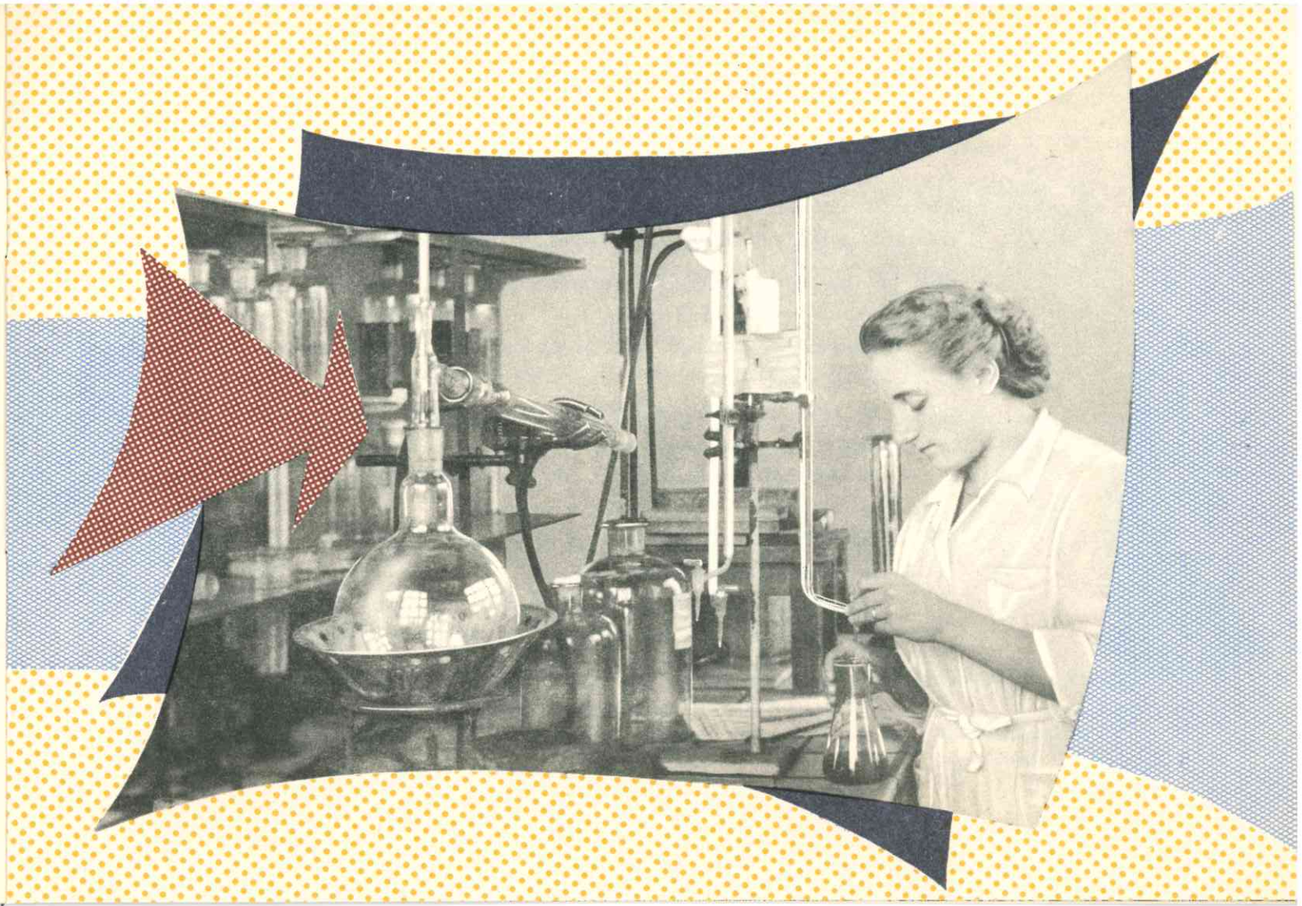

PC-U
Bristles
Wire

PC-U BRISTLES AND WIRES

During the past two decades the PC-U bristles, wires, and ribbons manufactured by us could replace the natural materials to a steadily increasing degree both in the industry and in the household. This is due to their excellent properties.

The PC-U bristles, wires, and ribbons are made from polyvinylchloride (PVC) powder, which is a white, odourless, tasteless, physiologically harmless, and non inflammable powder. It only undergoes physical but no chemical changes when being treated thermoplastically. The PC-U bristles, wires, and ribbons are therefore odourless etc., but before all as non-poisonous as the powder itself.

Due to the raw material used and to the special method of manufacture the PC-U bristles, wires, and ribbons have certain properties which must be known both to those who use this material and to the consumer in order not to omit any possibility for using them, and for avoiding any inexpedient treatment of the PC-U products.



CHEMICAL PROPERTIES

The PC-U bristles, wires and ribbons are extremely resistant to chemicals. Their high resistance to lyes and acids is not attained by any other natural or synthetic product.

PC-U bristles, wires, and ribbons are resistant to:

natural and purified water;
inorganic and organic acids of all kinds and concentrations except concentrated nitric acid;
all kinds of oxidation and reduction (even chromic acid, hydrogen peroxide, ozone);
all kinds of salt solutions (e. g. sea water, artificial silk spinning solutions, chloride of zinc lye);
aliphatic hydrocarbons (benzine and lubricating oil);
all kinds of vegetable oils and fats;
aqueous phenole, alcohol, and glycerine;
carbon tetrachloride (up to 20° C), formaldehyde, bacteria.

They are not resistant to:

conc. nitric acid, aromatous combinations (benzol, xylene etc.), sulphide of carbon, chloride of hydrocarbons (chloroform etc.), ethers, esters, ketones (acetone).

PHYSICAL PROPERTIES

With regard to the physical properties of the PC-U bristles, wires and ribbons we may state the following data:

specific gravity	about 1.38
stiffness, dry	about 1.5 cm × g
stiffness, wet	about 1.5 cm × g
resistance to heat:	up to about 60° C
resistance to cold:	down to about —20° C

PC-U bristles and wires are not suitable for articles exposed to impacts or frequent bending.

We must also point out that PC-U bristles, wires, and ribbons tend to electrostatic charges so that the use of the same cannot be recommended in workshops and factories exposed to explosion hazards.

STRENGTH AND ELONGATION

At present the PC-U bristles, wires, and ribbons are supplied with the following strength and elongation values which depend on the diameter:

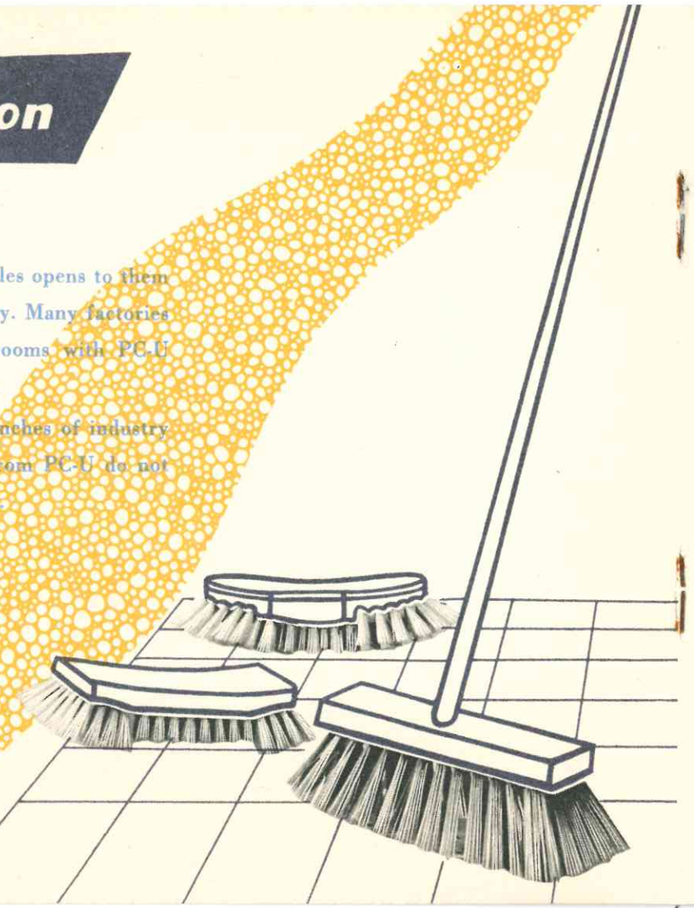
PCU bristles	8—12 kg/sq.mm	35—100% elongation
PCU wire	6—11 kg/sq.mm	35—100% elongation
PCU ribbons	6—10 kg/sq.mm	35— 70% elongation

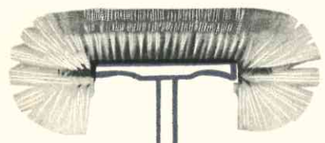
Fields of Application

PC-U bristles

The high resistance to chemicals of the PC-U bristles opens to them a vast field of application in the chemical industry. Many factories producing or using acids prefer brushes and brooms with PC-U bristles on account of their particular properties.

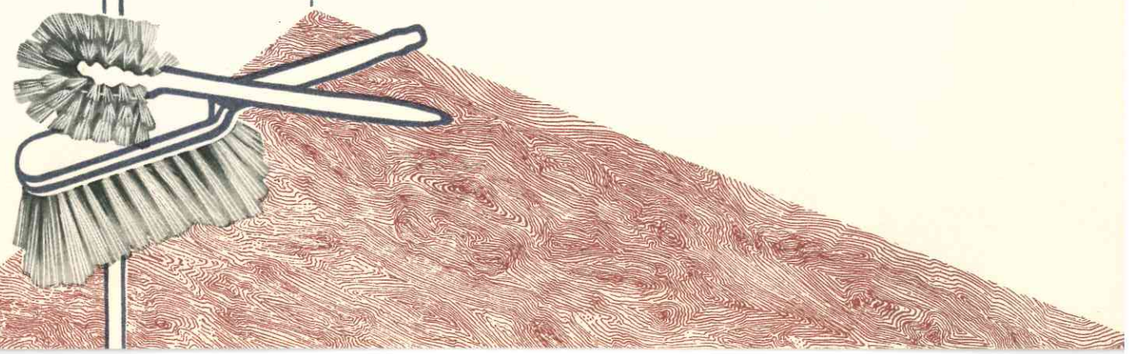
Other fields of application are given in many branches of industry due to the fact that brushes and brooms made from PC-U do not get rotten since they are not attacked by bacteria.

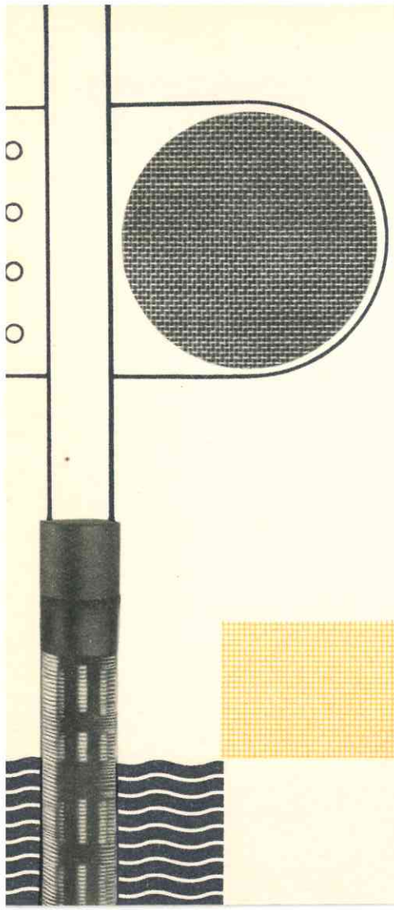




They also distinguish themselves by their unchanged rigidity and hardness both when dry or wet. These are remarkable improvements over the natural products. The use of PC-U bristles for the manufacture of paint-brushes and pencils is however restricted, though it may be mentioned that the undulated PC-U bristle has opened possibilities on a larger scale also in this field.

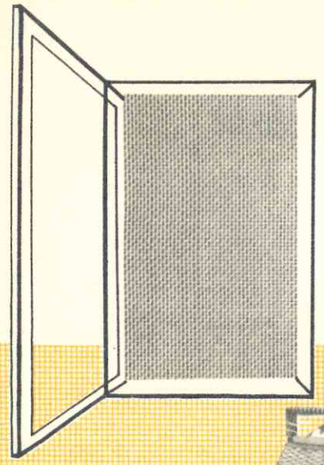
Brushes and brooms, scrubbing-brushes etc. made exclusively from PC-U bristles or mixed up with natural bristles have become very popular for the use in households. Here they have stood the test since years.



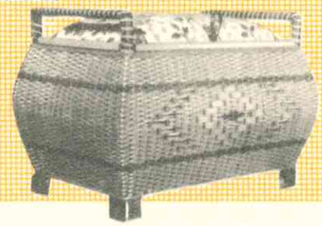


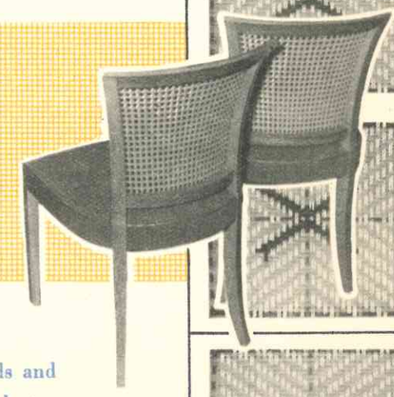
PC-U wire

PC-U wires have been used with the very best results in the industry in all cases where chemical influences forbid the use of perlon or metal wires, where the working temperature does not exceed 60° C, and where no excessive mechanical stress is to be expected. Textures made from PC-U wire splendidly stood the test e.g. for inserts for centrifuges, round sieve cylinders, washing drums, cellular filters etc., but not for endless wires.



Textures made from PC-U wires are also to be found in the household, particularly in the shape of fly-gauze but also as nettings for perambulators, linen-chests, baskets etc. due to the fact that PC-U products do not get rotten, that they are hygienic and easily to be kept clean.





Since many years PC-U ribbons have been used with best success in the foods and provisions industry, in the furniture industry (nettings), in the building industry (mats), for basket-making etc.

which we manufacture at present

Qualities

Bristles, undyed	0.25 mm	= about 0.08 gr./m
	0.30 mm	= about 0.10 gr./m
	0.35 mm	= about 0.12 gr./m
	0.40 mm	= about 0.17 gr./m
	0.50 mm	= about 0.35 gr./m
red	1.0 mm	= about 1.2 gr./m

PC-U bristles 0.30 mm are also supplied undulated.

		Breaking load per kg appr.	Running length per kg appr.
Wire, undyed	0.30 mm		10 000 m
	0.40 mm	1.3	5 300 m
	0.80 mm	4.0	1 500 m
and red dyed	1.2 mm	9.0	970 m
" " "	1.5 mm	12.0	470 m
" " "	2.0 mm	23.0	250 m
" " "	3.0 mm	50.0	120 m
Ribbon, undyed	5.5 × 0.8 mm	29.0	200 m

Tolerance in diameter + 10% as usual. Supplied in rings of 2 kg

PC-U bristles, wires, and ribbons can be subsequently dyed in many colours according to a method developed by the VEB Farbenfabrik Wolfen.

VEB FILMFABRIK AGFA WOLFEN

Wolfen/Kr. Bitterfeld

German Democratic Republic

For export information please apply to: DIA-Chemie,
Berlin C 2, Schicklerstraße 5—7
Telephone: 510321 — Cables: DIACHEM

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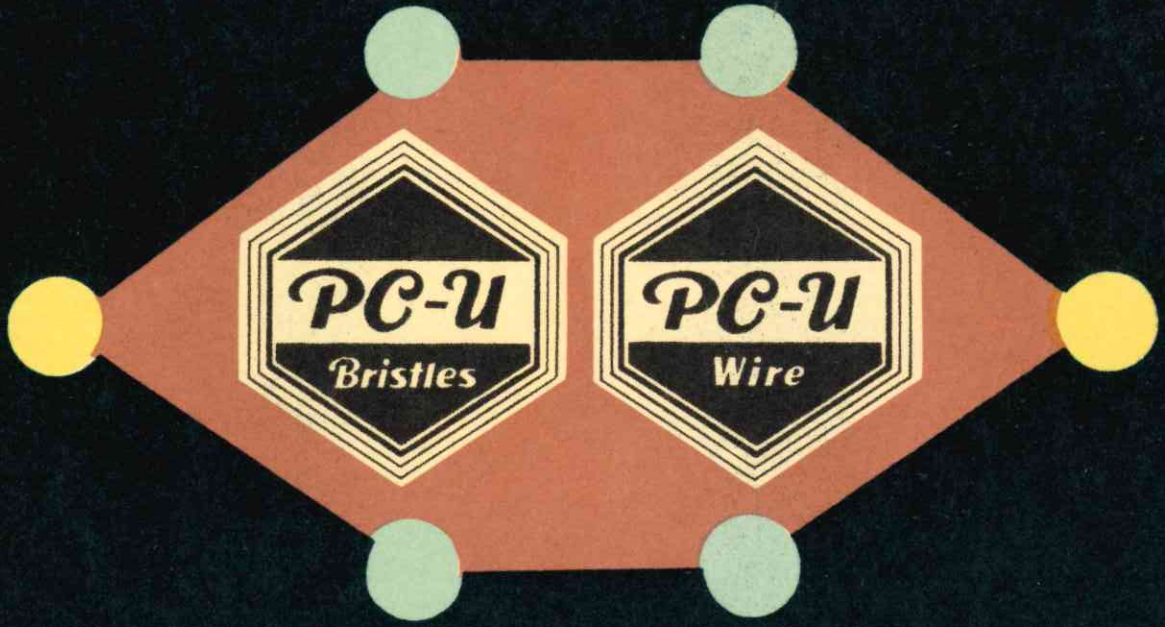
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