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# INTERNATIONAL STANDARD



# 2076

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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Revised

## Generic names for man-made fibres

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## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, International Standard ISO 2076 replaces ISO Recommendation R 2076-1971 drawn up by Technical Committee ISO/TC 38, *Textiles*.

The Member Bodies of the following countries approved the Recommendation :

Australia	France	South Africa, Rep. of
Belgium	Germany	Spain
Brazil	Greece	Sweden
Canada	India	Switzerland
Chile	Iran	Turkey
Czechoslovakia	Israel	United Kingdom
Denmark	Netherlands	U.S.A.
Egypt, Arab Rep. of	New Zealand	U.S.S.R.
Finland	Norway	

The Member Body of the following country expressed disapproval of the Recommendation on technical grounds :

Japan

## Generic names for man-made fibres

### 1 SCOPE AND FIELD OF APPLICATION

This International Standard gives a list of generic names<sup>1)</sup> for technical and commercial use, of the different categories of man-made fibres at present manufactured on an industrial scale for textile and other purposes.

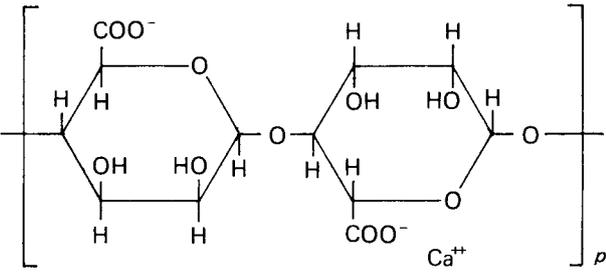
### 2 GENERAL DEFINITIONS

Man-made fibres include filament yarn, tows and staple fibres manufactured from natural or synthetic polymers.

The generic names given in the first column of the following table apply to fibres which include at least 85 % of the polymer described in the second column, the remaining portion up to 100 % being made up of additives not chemically linked with the said polymer.

1) In the English and French languages the generic names need not be written with initial capital letters.

TABLE -- Generic names

Generic name	Constitution of polymer	Typical examples, chemical formulae or characteristics
cupro <sup>1)</sup>	cellulose II	regenerated cellulose obtained by the cuprammonium process
viscose <sup>1)</sup>	cellulose II	regenerated cellulose obtained by the viscose process
modal <sup>1)</sup>	cellulose II	regenerated cellulose obtained by processes giving a high tenacity and a high wet modulus. These fibres or filaments shall be able to resist in the wet state a load per unit linear density of 22,0 cN per tex. Under this load the elongation in the wet state shall not be greater than 15 %.
deacetylated acetate <sup>1)</sup>	cellulose II	regenerated cellulose obtained by approximately complete deacetylation of a cellulose acetate
acetate	secondary cellulose acetate	cellulose acetate wherein less than 92 % but at least 74 % of the hydroxyl groups are acetylated
triacetate	cellulose triacetate	cellulose acetate wherein at least 92 % of the hydroxyl groups are acetylated
protein	regenerated natural protein	casein, arachin, zein, etc.
alginate	metallic salts of alginic acid	calcium alginate : 
acrylic	linear macromolecules having in the chain at least 85 % (by mass) of the recurring unit  $-CH_2 - \underset{\substack{  \\ CN}}{CH} -$	polyacrylonitrile : $-(CH_2 - \underset{\substack{  \\ CN}}{CH})_p-$  and acrylic copolymer : $- \left[ (CH_2 - \underset{\substack{  \\ CN}}{CH})_m - (CH_2 - \underset{\substack{  \\ Y}}{\overset{\substack{X \\  }}{C}})_n \right]_p -$

1) The name "rayon", in French *rayonne*, was not used by ISO in this International Standard because this name, used generically for regenerated cellulose fibres in some countries, does not have the same meaning everywhere. Each Member Body must determine its own position on this question and, should it be deemed necessary, define that position in its national standards.

Generic name	Constitution of polymer	Typical examples, chemical formulae or characteristics
chlorofibre	linear macromolecules having in the chain more than 50 % (by mass) of vinyl or chlorinated vinyl monomeric units	poly(vinyl chloride) : $-(\text{CH}_2 - \text{CH Cl})_p -$ and poly(vinylidene chloride) : $-(\text{CH}_2 - \text{C Cl}_2)_p -$
elastane <sup>1)</sup>	elastomer composed of at least 85 % (by mass) of a segmented polyurethane	fibre which, when stretched to three times its original length and released, recovers rapidly and substantially to its initial length.
elastodiene <sup>1)</sup>	elastomer composed of natural or synthetic polyisoprene, or composed of one or more dienes polymerized with or without one or more vinyl monomers	fibre which, when stretched to three times its original length and released, recovers rapidly and substantially to its initial length.
fluorofibre	linear macromolecules made from fluorocarbon aliphatic monomers	<ul style="list-style-type: none"> <li>- polytetrafluoroethylene :  <math>-(\text{CF}_2 - \text{CF}_2)_p -</math></li> <li>- polyhexafluoropropylene</li> <li>- polychlorotrifluoroethylene</li> </ul>
modacrylic	linear macromolecules having in the chain more than 50 % and less than 85 % (by mass) of the recurring unit  $-\text{CH}_2 - \underset{\text{CN}}{\text{CH}} -$	acrylic copolymer :  $-\left[ \begin{array}{c} \text{CH}_2 - \text{CH} \\   \\ \text{CN} \end{array} \right]_m - \left[ \begin{array}{c} \text{CH}_2 - \text{C} \\   \\ \text{X} \\   \\ \text{Y} \end{array} \right]_n -$
polyamide or nylon	linear macromolecules having in the chain the recurring functional group  $-\text{CO} - \text{NH} -$	<ul style="list-style-type: none"> <li>- polyhexamethylene adipamide (polyamide 6.6) :  <math>-\left[ \text{NH} - (\text{CH}_2)_6 - \text{NH} - \text{CO} - (\text{CH}_2)_4 - \text{CO} \right]_p -</math></li> <li>- polycaproamide (polyamide 6) :  <math>-\left[ \text{NH} - (\text{CH}_2)_5 - \text{CO} \right]_p -</math></li> </ul> and  <ul style="list-style-type: none"> <li>- polyundecanamide (polyamide 11) :  <math>-\left[ \text{NH} - (\text{CH}_2)_{10} - \text{CO} \right]_p -</math></li> </ul>
polycarbamide	linear macromolecules having in the chain the recurring functional group  $-\text{NH} - \text{CO} - \text{NH} -$	polymethylene urea :  $-\left[ (\text{CH}_2)_m - \text{NH} - \text{CO} - \text{NH} \right]_p -$

1) Forms part of the class of elastofibres.

Generic name	Constitution of polymer	Typical examples, chemical formulae or characteristics
polyester	linear macromolecules having in the chain at least 85 % (by mass) of an ester of a diol and terephthalic acid	polyethylene terephthalate : $- \left[ \text{OC} - \text{C}_6\text{H}_4 - \text{COO} - \text{CH}_2 - \text{CH}_2 - \text{O} \right]_p -$
polyethylene <sup>1)</sup>	unsubstituted aliphatic saturated hydrocarbon linear macromolecule	polyethylene : $- (\text{CH}_2 - \text{CH}_2)_p -$
polypropylene <sup>1)</sup>	aliphatic saturated hydrocarbon linear macromolecule, where one carbon atom in two carries a methyl side chain, generally in an isotactic disposition and without further substitution	polypropylene : $- (\text{CH}_2 - \underset{\text{CH}_3}{\text{CH}})_p -$
polyurethane	linear macromolecules composed of chains with the recurring functional group $- \text{O} - \text{CO} - \text{NH} -$	polymethylene dicarbamate : $- \text{NH} \left[ (\text{CH}_2)_m - \text{NH} - \text{CO} - \text{O} - (\text{CH}_2)_n - \text{O} - \text{CO} \right]_p -$
trivinyI	terpolymer of acrylonitrile, a chlorinated vinyl monomer, and a third vinyl monomer, none of which represents as much as 50 % of the total mass	
glass <sup>2)</sup>	mixed silicates	aluminium, calcium and magnesium borosilicates
vinyIal	linear macromolecules of poly(vinyl alcohol) with different levels of acetalization	acetalized poly(vinyl alcohol) : $- \left[ (\text{CH}_2 - \underset{\text{OH}}{\text{CH}})_m - (\text{CH}_2 - \underset{\text{O}}{\text{CH}} - \text{CH}_2 - \underset{\text{R}}{\text{CH}} - \underset{\text{O}}{\text{CH}})_n \right]_p -$ when $n \geq 0$

1) Forms part of the class of polyolefins.

2) Is also, in some European countries, called *verranne* when it is in the form of staple fibres and *silionne* when in the form of continuous yarns.