39.05 - Polymers of vinyl acetate or of other vinyl esters, in primary forms; other vinyl polymers in primary forms.

- Poly(vinyl acetate) :

3905.12 - - In aqueous dispersion

3905.19 - - Other

- Vinyl acetate copolymers :

3905.21 - - In aqueous dispersion

3905.29 - - Other

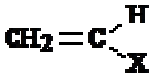
3905.30 - Poly(vinyl alcohol), whether or not containing unhydrolysed acetate groups

- Other :

3905.91 - - Copolymers

3905.99 - - Other

This heading covers all vinyl polymers **other than** those of **heading 39.04**. A vinyl polymer is one whose monomer has the formula



, where the C—X bond is neither a carbon-carbon bond nor a carbon-hydrogen bond. Polyvinyl ketones, where the C—X bond is a carbon-carbon bond are, therefore, **excluded** (**heading 39.11**).

Polymers of vinyl acetate or of other vinyl esters, of which poly(vinyl acetate) is by far the most important, are not suitable for the manufacture of articles as they are too soft and elastic. They are generally used for the preparation of lacquers, paints, adhesives, finishing or impregnating agents for textiles, etc. Solutions and dispersions (emulsions and suspensions) of poly(vinyl acetate) are used, e.g., as adhesives.

Poly(vinyl alcohol) is usually prepared by the hydrolysis of poly(vinyl acetate). Poly(vinyl alcohol) is available in a number of grades depending upon the content of unhydrolysed vinyl acetate groups. These are excellent emulsifiers and dispersing agents and are used as protective colloids, adhesives, binders and thickeners in paints, pharmaceuticals and cosmetics and in textiles. Fibres produced from poly(vinyl alcohol) are suitable for making underwear, blankets, clothing, etc.

Polyvinyl acetals can be prepared by reacting poly(vinyl alcohol) with an aldehyde such as formaldehyde or butyraldehyde, or by reacting poly(vinyl acetate) with an aldehyde.

Other vinyl polymers include polyvinyl ethers, poly(vinyl carbazole) and poly(vinyl pyrrolidone).
For the classification of polymers (including copolymers), chemically modified polymers and polymer blends, see the General Explanatory Note to this Chapter.