71.04 - Synthetic or reconstructed precious or semi-precious stones, whether or not worked or graded but not strung, mounted or set; ungraded synthetic or reconstructed precious or semi-precious stones, temporarily strung for convenience of transport (+).

7104.10 - Piezo-electric quartz

7104.20 - Other, unworked or simply sawn or roughly shaped

7104.90 - Other

These stones are used for the same purposes as the natural precious or semi-precious stones of the two preceding headings.

(A) **Synthetic precious and semi-precious stones**. This expression covers a range of chemically produced stones which either :

- have essentially the same chemical composition and crystal structure as a particular natural stone (e.g., ruby, sapphire, emerald, industrial diamond, piezo-electric quartz); or
- because of their colour, brilliance, resistance to deterioration, and hardness are used by jewellers, goldsmiths and silversmiths in place of natural precious or semi-precious stones, even if they do not have the same chemical composition and crystal structure as the stones which they resemble, e.g., yttrium aluminium garnet and synthetic cubic zirconia, both of which are used to imitate diamond.

When unworked, synthetic stones generally have the appearance of small cylinders or pear-shaped drops and are known as "boules"; these are usually split along their length or sawn into discs.

(B) **Reconstructed precious and semi-precious stones** are obtained artificially by various means, e.g., agglomerating, pressing or fusing together (usually with the aid of a blow pipe) fragments of natural precious or semi-precious stones which have generally been reduced to a powder.

Synthetic and reconstructed stones can normally be distinguished from natural stones by microscopic examination (preferably in a medium other than air) which reveals small bubbles and streaks.

The provisions of the Explanatory Notes to headings 71.02 and 71.03, especially as regards the working to which the stones may be submitted, are also applicable here.

Synthetic or reconstructed stones should not be confused with glass imitation precious or semi-precious stones of **heading 70.18** (see corresponding Explanatory Note).

Subheading Explanatory Notes.

Subheading 7104.10

Piezo-electric quartz has the property, when subjected to mechanical pressure, of producing an electric charge, the strength of which varies in relation to the pressure and, conversely, of converting into mechanical pressure the differences in electric potential to which it is subjected.

By reason of this property, piezo-electric quartz is used in the electrical equipment industry for various purposes : the manufacture of microphones, loudspeakers, instruments for transmitting or receiving ultrasonic waves, instruments for fixed frequency oscillations, etc.

The piezo-electric quartz falling in this subheading is generally in the form of thin sheets, plates, rods, etc., obtained by sawing synthetic quartz with a precision-cut along the line of electrical axis.

Subheading 7104.20

The Explanatory Note to subheading 7103.10 applies, *mutatis mutandis*, to this subheading.

Subheading 7104.90

The Explanatory Note to subheadings 7103.91 and 7103.99 applies, *mutatis mutandis*, to this subheading.