CLAIMS

1. A construction method of a tunnel supporting structure provided along an inner wall surface of a tunnel, comprising:

a framed-structure-unit arranging step for arranging a framed structure unit at a predetermined position;

a base supporting structure forming step for forming a base supporting structure along the inner wall surface of the tunnel; and

an yielding-section forming step for forming an yielding section by spraying a concrete material to the framed structure unit arranged at the predetermined position, wherein

the predetermined position is a position at which the framed structure unit is arranged so as to cross the base supporting structure in a tunnel radial direction, and

the framed structure unit is formed of a resin material.

2. A construction method of a tunnel supporting structure provided along an inner wall surface of a tunnel, comprising:

a framed-structure-unit arranging step for arranging a framed structure unit at a predetermined position;

a base supporting structure forming step for forming a base supporting structure along the inner wall surface of the tunnel; and

an yielding-section forming step for forming an yielding section by spraying a concrete material to the framed structure unit arranged at the predetermined position, wherein

the predetermined position is a position at which the framed structure unit is arranged so as to cross the base supporting structure in a tunnel radial direction, and

the framed structure unit is formed by connecting a plurality of base framed structure units containing a plurality of rod-shaped elements.

3. The construction method of the tunnel supporting structure according to claim 1 or 2, wherein

in the base supporting structure forming step, a slit is formed so as to cross the base supporting structure in the tunnel radial direction,

in the framed-structure-unit arranging step, the framed structure unit is arranged in the slit of the base supporting structure formed by the base supporting structure forming step, and

in the yielding-section forming step, the yielding section is formed by spraying the concrete material to the framed structure unit arranged in the slit of the base supporting structure.

4. The construction method of the tunnel supporting structure according to claim 1 or 2, wherein

in the base supporting structure forming step, the base supporting structure is formed so as to be adjacent to the framed structure unit arranged at the predetermined position.

5. The construction method of the tunnel supporting structure according to claim 1 or 2, wherein

the base supporting structure includes steel supporting structures arranged at predetermined intervals in a tunnel axial direction.

6. The construction method of the tunnel supporting structure according to claim 1 or 2, wherein

the base supporting structure includes a concrete supporting structure formed by spraying the concrete material to the inner wall surface of the tunnel.

7. The construction method of the tunnel supporting structure according to claim 6, wherein

the base supporting structure forming step includes the yielding-section forming step, and the yielding section is formed together with the base supporting structure by spraying the concrete material to the inner wall surface of the tunnel and the framed structure unit arranged at the predetermined position.