

Clause 1

The protected designation of origin GRANA PADANO refers to cheese produced all year round from untreated cows' milk and partially creamed using natural separation, a cooked curd, hard and slow maturing cheese used as a table cheese or grated, which complies with the conditions and requirements set out in this product specification.

Clause 2

The characteristics of the product when ready for consumption are as follows:

- Shape: cylindrical with slightly convex or nearly straight sides and flat, slightly rimmed faces;
- Diameter: from 35 to 45 cm;
- Side height: from 18 to 25 cm, with greater or smaller variations in both, depending on manufacturing conditions;
- Weight: from 24 to 40 kg;
- Rind: hard and smooth, 4 to 8 mm thick;
- Texture: hard, with a finely grained composition, radial flaky cracking and barely visible perforations;
- Fat content of the dry cheese: 32% minimum;
- Rind colour: dark or natural golden yellow; no artificial colouring is allowed;
- Colour of the cheese: white or straw coloured;
- Aroma: sweet-smelling;
- Flavour: delicate.

Without prejudice to the characteristics mentioned above, tolerances regarding the structure of the crust and / or dough are permitted, as mentioned in the following art. 5

The specific amino-acid composition of GRANA PADANO P.D.O. cheese has been registered with the *Consorzio per la Tutela del Formaggio GRANA PADANO* (GRANA PADANO Cheese Protection Consortium) and the Italian Ministry of Agriculture, Forestry and Foods and was determined with the use of ion-exchange chromatography coupled with post-column ninhydrin photometric detection.

The specific isotopic composition of GRANA PADANO P.D.O. cheese, identified using isotope ratio mass spectrometry (IRMS), has been filed with the *Consorzio per la Tutela del Formaggio GRANA PADANO* (GRANA PADANO Cheese Protection Consortium) and the Italian Ministry of Agriculture, Forestry and Food Policy.

The specific mineral profile composition of GRANA PADANO P.D.O. cheese, identified using mass spectrometry with inductively coupled plasma source (ICP-MS), has been filed with the *Consorzio per la Tutela del Formaggio GRANA PADANO* and the Ministry of Agricultural, Forestry and Food Policy.

The lysozyme content of the finished product – where used in cheese-making – measured with reverse phase liquid chromatography and fluorescence detection, must be related to the amount declared and verified during the cheese-making process.

Grated GRANA PADANO P.D.O. is obtained exclusively from already certified whole cheese wheels. However, within the limits and under the conditions specified in the following Art. 7, the use of trimmings coming from the cutting and packaging of "Grana Padano" in pieces with variable weight and / or fixed weight, blocks, cubes, morsels etc. is allowed for the production of grated "Grana Padano".

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The grating process must be carried out within the boundaries of the GRANA PADANO P.D.O. area of production.

Packaging of grated GRANA PADANO P.D.O. must take place immediately, in the same area, with no treatment or addition of any other substances.

While the typical characteristics of GRANA PADANO P.D.O. remain unaffected, the "grated" product should have the following characteristics:

- humidity: no less than 25% and no more than 35%;
- appearance: non-powdery and consistent, no more than 25% of particles should have a diameter smaller than 0.5 mm in diameter;
- quantity of rind: no more than 18%.

Clause 3

The area of production and grating for GRANA PADANO P.D.O. comprises the provinces of Alessandria, Asti, Biella, Cuneo, Novara, Turin, Vercania, Vercelli, Bergamo, Brescia, Como, Cremona, Lecco, Lodi, Mantua to the left of the Po, Milan, Monza, Pavia, Sondrio, Varese, Trento, Padua, Rovigo, Treviso, Venice, Verona, Vicenza, Bologna to the right of the Reno, Ferrara, Forlì Cesena, Piacenza, Ravenna, Rimini and the following cities in the province of Bolzano: Anterivo, Lauregno, Proves, Senale-S. Felice and Trodena in the autonomous province of Bolzano.

Clause 4

GRANA PADANO P.D.O. cheese is made from raw cow's milk from cows milked twice a day or using a robotic milking system with free cow traffic which ensures that the milk retains the desired properties.

The milk must be collected within twenty-four hours from the first milking.

The basic feed for the dairy cattle, consisting of green or preserved fodder, is fed to lactating cows, dry cows and heifers that are more than 7 months pregnant.

Dairy cows' diet is based on forage obtained from the home farm or from farming businesses within the boundaries of the GRANA PADANO P.D.O. production area, as specified in clause 3.

Within the daily ration, no less than 50% of the dry matter should be provided in the form of forage, with a ratio of forage / fodder to dry material of not less than 1.

At least 75% of the fodder's dry matter in the daily ration must come from foodstuff produced in the milk production area of GRANA PADANO P.D.O. cheese, as specified in clause 3.

Acceptable and authorised forage includes:

Fresh forage - fresh forage from meadows that are established, artificial or mown.

Ideal forage constituents are: mixed established meadow grasses, alfa-alfa and clover; separate herbage or similar, consisting of ryegrass, winter rye, oats, barley, maize, wheat, sorghum, corn, millet, fescue, timothy, lupin, pea, vetch and field bean.

Hay: obtained from field drying, air drying methods or dehydration of fresh forage.

Straw: from cereals such as wheat, barley, oats, rye, and triticale.

Silage, are not permitted in the production of Trentingrana type cheese:

- chopped corn;
- silo hay.

Acceptable fodder

The following is the list of raw materials for feed, grouped into categories, which may be added to the fodder used to feed lactating cows, dry cows and heifers that are more than 7 months pregnant, whose milk is to be used to produce GRANA PADANO P.D.O. cheese.

Cereals, and their by-products:

- Maize, barley, wheat, grain sorghum, oats, rye, and triticale: kernels, flour and related by-products both dried and silaged, including crushed grain and heat-treated by-products such as those that are flaked, extruded or ground.
High moisture corn: both high moisture shelled corn or high moisture whole ears of corn.

Oilseed and its by-products

- soya, cotton, sunflower oil and linen: grain, flour and related by-products, such as flour extruded meal and subjected to heat treatment.

Tubers, roots and their products

- Potatoes and associated by-products.

Dehydrated forage

- Forage cultivars: straw from small-grain crops, corn-cobs, whole corn plants, ensiled, ground or pelleted.

By-products from the sugar industry

- Beet pulp, dry sugar-beet pulp and molasses sugar-beet pulp;
- molasses and / or by-products: only as adjuvant or as taste improving substance, up to a maximum of 2.5% of the daily diet dry matter.

Leguminosae seeds plants and carob-beans

- Protein-rich peas, broad beans (faba) and field beans (vicia faba var minor): grain, flour and associated by-products.
- Carob-beans and associated by-products.

Fats

- Vegetable fats with an iodine number no higher than 70 and fatty oil acids of vegetable origin with the fatty acids or salt fatty acids. Fish oils are accepted in additive or premix formula.

Minerals

- Mineral salts, authorised under current E.U. legislation.

Additives

- Vitamins, trace elements, amino acids (rumen-protected), flavourings and antioxidants, authorised under current E.U. legislation. Only natural or nature-identical antioxidants and flavourings are acceptable.
Further clarification on the possible use of new additives accepted by legislation will be provided by the Consortium via its own Committee.

Miscellaneous

- The use of inactivated beer yeast is acceptable as a support for "pre-mixes".

Clause 5

Production under sub-contract or lease arrangements are not accepted.

The temperature of the untreated milk, when stored in the cowshed and dairy and when transported, must be no lower than 8°C.

The cheese can be made using milk from a single milking session or a mixture of batches from more than one milking session, after being left to settle and to allow the cream to rise naturally to the surface.

It is also possible to use a batch of milk from which only a portion has been left to settle and to allow the cream to rise naturally to the surface.

The milk must be partially skimmed using natural separation, at a temperature between 8 and 20°C, so that the fat / casein ratio in the copper vat is between 0.80 and 1.05. For Trentingrana cheese, the maximum fat / casein ratio of the milk in the vat is 1.15. This ratio is also permitted whenever milk from a mixture of two milking sessions is used and only one of the two is allowed to settle.

From the dairy farm to processing, the milk may not be subject to any physical, mechanical or heat treatment, which may alter its status as natural untreated milk.

The milk is then placed in upturned bell-shaped boilers (vats), made of copper or with a copper internal lining.

The use of lysozyme is accepted, except for Trentingrana cheese, up to a maximum of 2.5.g per hundred kilograms of milk.

Coagulation is achieved using calves' rennet, after the addition of a natural whey starter. Should the fermentation acidity level of the whey starter after 24 hours be lower than 26° Soxhlet Henkel / 50ml, it is acceptable, up to a maximum of twelve times a year, to add native lactic bacteria such as *Lactobacillus helveticus* and / or *lactis* and / or *L.casei*, when starting to prepare the whey starter for the following day.

The curd is broken into small granules and cooked until these become elastic, at a maximum temperature of 56°C and left fully immersed in the whey, in the same vat, for a maximum of 70 minutes after the cooking is finished.

It is then placed in moulds, which stamp the marks of origin into the cheese, for at least 36 hours. The cheese is then immersed in brine for 14 - 30 days.

When the cheese wheels are removed from the brine, they may be rinsed off and / or left in an environment heated to between 25 ° and 60 ° C for no more than 24 hours.

Natural maturing is achieved by keeping the cheese in a place where the temperature is between 15 and 22° C, for a period of nine months after moulding.

Only cheese that shows an alkaline phosphatase level in the part of the cheese located one centimetre below the rind, taken at mid height on the side and measured using the fluorimetric method or one compatible with the use of untreated milk that also complies with all the parameters set out in clause 2 of this specification, undergoes expert checks, no earlier than eight months after moulding.

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The expert checks will then lead either to branding, or else to deletion of the marks of origin impressions left by the moulds, using crosshatching or bleaching, should the product not show the characteristics required by clause 2.

Grana Padano is classified as "*scelto sperlato*" (or "selected"), "zero" and "one".

- Grana Padano "*scelto (sperlato)*" has no internal or external defect.
- Grana Padano "0" (zero) while still a top-quality product in terms of the structure of the cheese itself, has some minor rind defects known as "correzioni" ("corrections").
- Grana Padano "1" (one) - also known as "*sottoscelto*" (below top quality) – has some slight "corrections" or minor defects in the rind or in the internal structure, with slightly increased eyes, and is slightly "slow" when tested with the testing hammer (i.e: it does not give the proper sound).

The product cannot be sold as GRANA PADANO P.D.O. until it is fully nine months old. Before the end of this period, the cheese may not leave the area of production.

Clause 6

Controls over the implementation of this Specification are carried out in accordance with clauses 10 and 11 of EC regulation No. 510/2006.

Clause 7

The processing of GRANA PADANO P.D.O., of any type and size - whether in segments or grated, with or without the rind (on the side) - using the Protected Designation of Origin and the logo that distinguishes it, may only be handled by those holding the appropriate packaging authorisation issued by the Grana Padano Protection Consortium, the body recognised and charged with undertaking the functions described in clause 14, paragraph 15 of law number 526, dated 21 December 1999.

Two separate packaging authorisations are provided for, one relating to segments with rind and the other relating to grated cheese. Any type of cheese product packaged without the rind (small pieces, slices without rind, flakes etc.) is treated like grated cheese and is subject to the same requirements.

The only case in which packaging authorisation is not required, is for "pre-packed" cheese, in other words, where the packaging takes place at the point of sale.

TERRITORIAL BOUNDARIES FOR THE 'GRATED' TYPE

In order to maintain the best possible quality, ensure traceability and guarantee control over the product, packaging authorisations for GRANA PADANO P.D.O. cheese in its 'grated' form and for similarly treated formats, can only be issued to businesses operating within the production area specified in clause 3 and limited to establishments located within that area.

To grant the authorisations in question, prior permission will be required to be issued by the Supervising Body in charge, following appropriate investigations carried out at the premises of the applicant company.

RESTRICTIONS AND CONDITIONS FOR THE USE OF GRANA PADANO P.D.O. SCRAPS IN THE PRODUCTION OF ' GRATED ' GRANA PADANO

The use of the scraps from the cutting and packaging of 'Grana Padano' P.D.O. in pieces of variable weight and/or fixed weight, blocks, chunks, etc. for the production of 'grated Grana Padano', is permitted only under the following conditions:

- a) a maximum percentage of 18% of the crust/rind must be respected, referred to in Clause 2.
- b) the traceability of the Grana Padano P.D.O. whole wheels from which the trimmings come from must be ensured. To this end, in order to use the scraps for processing it is necessary to fill in the

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appropriate processing registration form, provided by the Grana Padano Protection Consortium, with reference to the dairy producer's number, the production month and year and the details of the delivery document that enables to trace the arrival of the wheels in question and the quantity of trimmings/waste produced during their processing.

c) In the case of deferred use and / or transfer from one plant to another, the trimmings/waste from each producer (registration number) and production month should be kept separate. In order to facilitate the controls on the container or on the wrappers containing said trimmings, the respective registration numbers of the dairy produce, and relevant month and year of production must be clearly indicated.

d) Trimmings may only be transferred within the same cheese making business or between businesses within the business group. Therefore, trimmings to be used for grated "Grana Padano" may not be sold as a stand-alone product.

Clause 8

The official mark, certifying ownership of the requirements that legitimise the use of the Protected Designation of Origin GRANA PADANO and that must therefore appear on whole cheeses, consists of a rhomboid design, crossed at the shorter diagonal by a wide band, bordered by two parallel stripes above and two below. In the centre of the band, the words "GRANA" and "PADANO", are written on two lines in block capital letters.

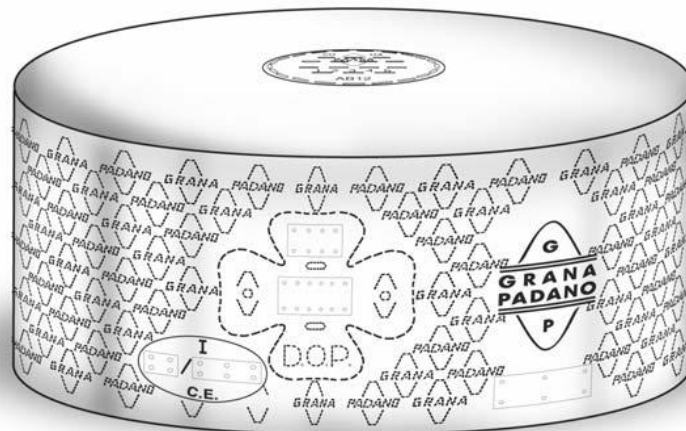
Within the upper and lower angles of the rhomboid, which are rounded, are the initials "G" and "P" respectively.

GRANA PADANO P.D.O. cheese is identified by the following marks:

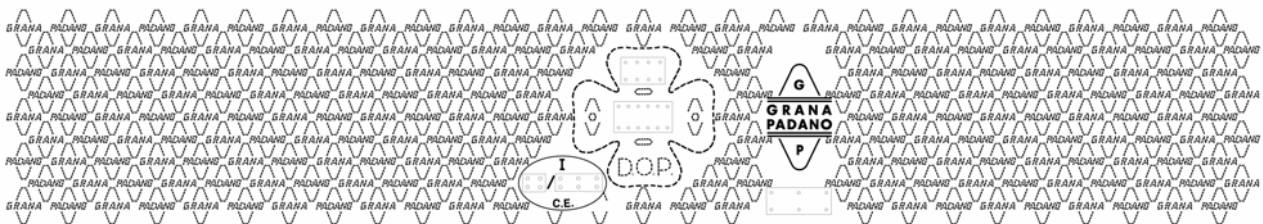
A) ON THE WHEELS OF CHEESE:

1 – of the GRANA PADANO category

The mark of origin bands, cold impressed on the cheeses at the time of moulding, consist of a series of dashed line rhomboidal lozenges containing the alternate words "GRANA" and "PADANO" written in dashed capital letters, sloping slightly to the right, staggered and repeated continuously all round the cheese, except for one empty space reserved for the application of the GRANA PADANO brand as specified above. At the centre is a four-leaf clover, containing two capital letters, one above the other, representing the abbreviation for the province in which the cheese-maker is located, the registration number of the cheese-maker, consisting of three numbers and the inscription "DOP", as well as two small ovals and two small circles, each cutting across a dashed lozenge, located above, below, and to right and left of the registration number. Below and to the left of the four-leaf clover is the EC stamp that identifies the producer's establishment for health purposes, while to the right of the four-leaf clover, below the space reserved for application of the GRANA PADANO brand, the production year and month are shown, using two numbers and three letters respectively. This description and the illustration below refer to the final effect on the cheese but it should be clarified that, in the moulds, the items mentioned appear in reverse order, i.e. the EC stamp is to the right, and the space for the brand and for the year and month of manufacture are to the left, of the four-leaf clover.



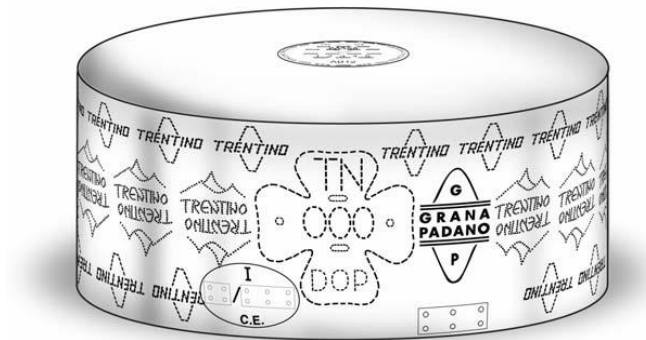
two-dimensional view of the finished effect on the cheese:



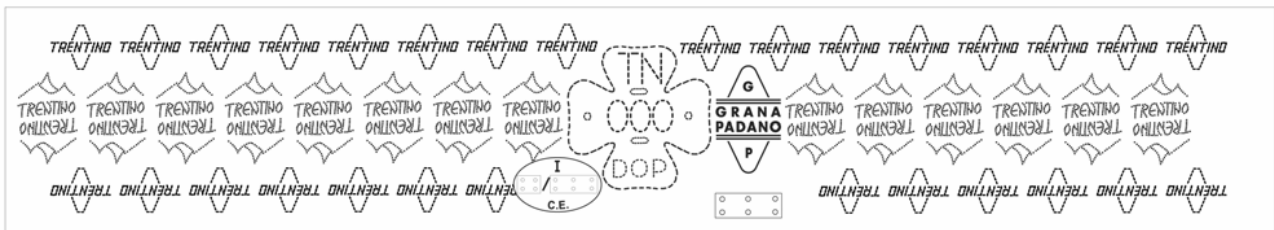
2 – of the TRENTINGRANA category

Only GRANA PADANO P.D.O. produced in the autonomous Province of Trento is permitted to carry the marks described and illustrated below, on condition that the milk used is from milk cattle farms lying in the Alpine valleys of this area, i.e. in the entire administrative area of local authorities in the autonomous province of Bolzano previously mentioned in clause 3 and that they are fed with forage that excludes silage of any type, all year round.

The specific mark of origin bands required for the TRENTINGRANA category cheese specified above consist of an upper and lower row of dashed line rhomboidal lozenges, crossed by the word "TRENTINO" written in dashed capital letters, sloping slightly to the right. Around the centre, between stylised mountains, are the words "TRENTINO" written in both directions; at the centre is a four-leaf clover, containing two capital letters, "TN" one above the other, the abbreviation for the province of Trento in which the cheese-maker is located, the registration number of the cheese-maker, consisting of three numbers and the inscription "DOP", as well as two small ovals and two small circles, located above, below, and to right and left of the registration number. Below and to the left of the four-leaf clover is the EC stamp that identifies the producer's establishment for health purposes, while to the right of the four-leaf clover, below the space reserved for application of the GRANA PADANO brand, the production year and month are shown, using two numbers and three letters respectively. This description and the illustration below refer to the final effect on the cheese, but it should be clarified that, in the moulds, the items mentioned appear in reverse order, i.e. the EC stamp is to the right, and the space for the brand and for the year and month of manufacture are to the left, of the four-leaf clover.



two-dimensional view of the finished effect on the cheese:



The identification function of the mark of origin bands is combined with the application of the cheese-maker's badge bearing the words "GRANA PADANO", the year of production and an alphanumeric code, which allows every cheese to be unambiguously identified, to ensure that it can be traced precisely.

Grana Padano cheese that is aged in the area of production for at least 20 months after moulding and shows the qualities listed below, can be identified as "RISERVA":

- "scelto sperlato" (selected as free from defects);
- very grainy structure with a clear radial flaky texture;
- consistent white or pale-yellow straw colour;
- absence of abnormal smells;
- sweet-smelling and delicate flavour.

Entitlement to the "Grana Padano RISERVA" category is endorsed by a second fire-brand, applied to the side of the cheese wheels, at the request of the producers, using the same methods as specified for the application of the P.D.O. brand.

The brand in question consists of a circular design, crossed horizontally at the centre by a wide band, bordered by two parallel stripes, one above and one below; at the centre of the band is the word "RISERVA", inscribed in capital letters. In the upper part of the circle is the word "OLTRE" (more than) in capital letters, with the number "20" while, in the lower part, is the word "MESI" (months) also in capital letters.

The brand in question is reproduced below:



The brand is applied close to the four-leaf clover, on the opposite side to the GRANA PADANO brand.

B) ON THE PACKAGING

Packaged cheese should carry the GRANA PADANO logo on the packaging. When reproduced on packaging, the official mark certifying ownership of the requirements that legitimise the use of the Protected Designation of Origin GRANA PADANO, all as described at the beginning of this clause, is slightly modified in the stroke and lacks the 'G' and 'P' inscribed inside the upper and lower corners of the rhomboid. It stands on a background of Pantone colour 109.c, of the same shape but slightly wider than the black line.

The parameters for reproducing the logo on packaging are as follows:



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Font: PADANO

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Minimum permitted size:



The packaging for TRENTINGRANA type of Grana Padano PDO cheese, as identified above, i.e. obtained from wheels marked by the specific marking bands provided for this type, will be characterised by the following logo, placed on the packaging and related advertising material



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Regarding the packaged product, in addition to GRANA PADANO P.D.O. as such, subject to investigation of the quality requirements by means of the second expert assessment, two further product categories are provided for: "Grana Padano RISERVA oltre 20 mesi", over 20 months of ageing, and "Grana Padano RISERVA Oltre 24 mesi", over 24 months of ageing.

On the packaging of Grana Padano, aged from 12 months onwards, it is also permitted to specify the actual ageing period.

This indication remains optional, however, if it is to be included, the ageing period must be indicated uniformly on all packaging, using special numbering, in yellow on black, with the addition of the words 'over X months'.

In particular, the parameters to reproduce the logo on the packaging for the ageing indication are given below:



On the packaging containing cheese of the "**Grana Padano RISERVA Oltre 20 mesi**" category, in addition to the logo Grana Padano as described above, there is also a reproduction of the fire-brand mark RISERVA.

The logo in question is composed as follows: circular design, crossed transversely at the centre by a large band delimited by an upper and a lower parallel strip; in the centre of the band is inscribed the word 'RISERVA', in capital letters. Inside the upper half-moon the word "OLTRE" (over) is inscribed, in capital letters, while inside the lower half-moon, the number "20" and the word "MESI" (months) are inscribed, also in capital letters.

The design in question is made in gold colour and inscribed on a black background of corresponding shape but slightly wider than the gold line.

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The parameters to reproduce the logo on the packaging in question are the following:



On packaging of Grana Padano cheese which has been fire-branded with the "RISERVA - Oltre 20 Mesi" mark on the wheel, it is permitted to specify the actual ageing period of over 24 months. This indication remains optional, however, if it is to be included, the ageing period must be indicated uniformly on all packaging, using a specific logo, similar to the one described above for 'RISERVA - OLTRE 20 MESI' cheese, but with black lettering on a gold background.

Specifically, the parameters for reproducing the specific logo are set out below:



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As is already the case for cheese in the 'RISERVA - OVER 20 MONTHS' category, the GRANA PADANO logo will also be reproduced on the packaging bearing this logo as described above.

For clarity, the ageing logos should be shown as in the diagram below:

SVILUPPO LOGHI STAGIONATURA

