



PRODUCT TECHNICAL DATA SHEET

Rev. 02 of 10/10/2008

PARMIGIANO REGGIANO CHEESE D.O.P.



PRODUCT DESCRIPTION

Cheese of medium butterfat content, prepared over heat and requiring slow maturing, produced by coagulation with fermentation acids from the cow's milk whose basic nourishment consists of heterogeneous fresh pasture grass or hay. The maturing cheese is used plain or grated.

It is produced in the provinces of Bologna (on the left bank of the Reno river), Mantova (on the right bank of the Po river), Modena, Parma and Reggio Emilia.

D.O.P. CERTIFICATIONS

Parmigiano Reggiano cheese is a product with the Protected Designation of Origin (P.D.O.), in compliance with the European norm contained in EEC Regulation n. 510/06. Cheese produced according to the rules contained in the Production Regulation is the only cheese entitled to bear the Parmigiano-Reggiano mark and, therefore, the wheel must display all the marks required for identifying and distinguishing the product. These marks are subdivided into marks of origin and grade selection marks.

INGREDIENTS

Cow's whole milk (about 99%), sea salt (about 1%), calf rennet (traces).
Additives are not allowed in the production of Parmigiano-Reggiano cheese. The inspections of dairies which are carried out by the Consortium affirm that this norm is strictly complied with.

CHEESEMAKING

The milk is brought at the cheese dairy after each milking. The evening milk is poured out into steel trays to rest through the night. The following morning, the naturally accumulated cream is skimmed off; the evening and morning milks are then put together in the cauldron, of the capacity of about 1200 litres of milk, from which two cheeses are obtained.

As this stage the "starter" is added. This whey is a residue of the preceding batch in which the lactic flora has developed by fermentation. Coagulation occurs within 10 to 15 minutes, after the addition of calf rennet, at the temperature of 35° Celsius. The curd is then broken up and heated to 55° Celsius in about 20 minutes. When the heat is turned off, the cheese granules



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	<p>are precipitated toward the bottom of the cauldron where they again form a single mass, and then rest under the whey at the same temperature for about 60 minutes. The mass is then extracted and placed inside a mould where it takes its final shape.</p> <p>After 2 days the cheese is salted in a saturated brine for 3 or 4 weeks, and then it is taken to the store house where the first stage of maturing takes place.</p> <p>There the cheese is placed on massive wooden shelves, where it is regularly brushed clean and turned over. Nothing is applied to the rind. The cheese, after a few months, is sold in lots to traders who transfer it to other store rooms, independents from the production places, where the cheese completes the maturing process. Maturing is natural and must last minimum 12 months (average 18-24 months).</p>
<p><i>TYPICAL CHARACTERISTICS OF PRODUCT</i></p>	<ul style="list-style-type: none"> - Form: cylindrical, with slightly convex to almost vertical sides, the flat ends being slightly bordered; - Size: 35 or 45 cm diameter; 20 - 26 cm high; - Weight: minimum weight of an individual cheese 30 Kg., average weight of an individual cheese 38 Kg.; - Crust: fine and elastic; - Appearance and consistency: minutely granulated, exhibiting internal scale-formation, minute holes barely visible to the eye, natural golden yellow colour; - Flavour: fragrant, delicate, savoury, mild but not piquant; - Thickness of rind: about 6 mm; - Seasoning: 13/14 months and 22/24 months;
<p><i>SYMBOLS AND MARKS OF ORIGIN</i></p>	<p>The marks of origin applied on the cheese wheel at the beginning of the production process are:</p> <p>a) the marks printed by means of the stencilling band, placed entirely around the wheel, which has pre-punched dots bearing the inscription "PARMIGIANO-REGGIANO", the identification number of dairy, the production month and year, the acronym "D.O.P." for the Protected Designation of Origin and the inscription "CONSORZIO TUTELA";</p> <p>b) the casein plate applied on the surface that shows the production year, the acronym "C.F.P.R." and an alphanumeric code identifying each single wheel.</p> <p>Parmigiano-Reggiano mark on wheel parts The Consortium is the holder of the Parmigiano-Reggiano</p>



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P.D.O. marks and is in charge of the relevant supervisory activities, including the correct use of these marks. For this reason, the Consortium identified and registered the mark, which is a "cheese wheel and wedge with the inscription Parmigiano Reggiano on a black background", as a visual sign of identification and recognition of Parmigiano-Reggiano in wheel parts.

Parmigiano-Reggiano

The application of the "PARMIGIANO-REGGIANO" mark identifies the cheese that was recognised as being of the first category (first grade - zero - one) during the grade selection test for the conformity to P.D.O. standards. The wheels having the market characteristics of the first category bear marks of origin (the dotted inscription, etc.) and the oval hot iron branded mark.

Parmigiano-Reggiano. Mezzano

This name identifies the Parmigiano-Reggiano cheese that shows limited or medium-sized defects in the mass and/or rind structural texture, which do not affect the typical organoleptic features of the product. Besides the hot iron branded mark, a special mark consisting of parallel lines is stencilled all around the cheese rind.

Parmigiano-Reggiano EXTRA

It is the Parmigiano-Reggiano cheese that, after 18 months of maturation, has passed an additional quality assessment test upon request of the cheese holder.

Parmigiano-Reggiano EXPORT

Like the EXTRA mark, it is Parmigiano-Reggiano cheese that, after 18 months of maturation, is classified as "first grade" by the experts of the Consortium.

"GRATED" Parmigiano-Reggiano

The "Parmigiano-Reggiano" designation can be used to denominate the grated product obtained from whole wheels that comply with the standards established by the Regulation.

PRODUCTION AREA

It includes the whole area of the following provinces: Bologna (on the left bank of the Reno river), Mantova (on the right bank of the Po river), Modena, Parma and Reggio Emilia.
The secret of such goodness originates in the place of origin, in the natural feed, and in the high quality milk with no additives. During the long aging process, natural fermenting agents in the milk give the cheese its particular flavour and texture, in other words, its typicality.



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<i>SHELF LIFE</i>	180 days from date of delivery/date of issue of delivery note (for packed product only)
<i>CARRIAGE CONDITION</i>	With refrigerant vehicle at the temperature from +4°C to +8°C
<i>PALLET SYSTEM</i>	EPAL 80 cm x 120 cm
<i>STORAGE CONDITION</i>	In refrigerant store at the temperature from +4°C to +8°C
<i>PRESERVATION CONDITION</i>	Keep in a cold place at the temperature from +4°C to +8°C
<i>CUSTOM CODE</i>	04069061

TYPES OF FORMAT (both for cheese aged 22/24 months and cheese aged 13/14 months)

SELLING FORMAT (net weight)	TYPE OF PACKING
Wheel – about 38 Kg.	Not packed
1/4 of a wheel – about 9 Kg.	Vacuum food-grade PVC bag
1/8 of a wheel – about 4,5 Kg.	Vacuum food-grade PVC bag
1/16 of a wheel – about 2,3 Kg.	Vacuum food-grade PVC bag
1/32 – 1/36 of a wheel – about 1,2 Kg.	Vacuum food-grade PVC bag
700 grams – random weight packaging	Vacuum food-grade PVC bag
500 grams – random weight packaging	Vacuum food-grade PVC bag
350 grams – random weight packaging	Vacuum food-grade PVC bag

TYPES OF FORMAT AND PALLET (both for cheese aged 22/24 months and cheese aged 13/14 months)

SELLING FORMAT (net weight)	Wheel	1/4 of a wheel	1/8 of a wheel	1/16 of a wheel
<i>EAN code</i>				
<i>Items/carton</i>	1	2	4	8
<i>Cartons/layer</i>	5	5	5	5
<i>Layers/pallet</i>	5	6	6	6
<i>Cartons/pallet</i>	25	30	30	30



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SELLING FORMAT (net weight)	1/32 – 1/36 of a wheel	700 grams	500 grams	350 grams
<i>EAN code</i>				
<i>Items/carton</i>	18 - 20	30 - 15	45 - 25	60 - 30 - 15
<i>Cartons/layer</i>	6 - 6	6 - 10	6 - 10	6 - 11 - 10
<i>Layers/pallet</i>	5 - 5	5 - 5	5 - 5	5 - 5 - 10
<i>Cartons/pallet</i>	30 - 30	30 - 50	30 - 50	30 - 50 - 100

PHYSICAL AND CHEMICAL COMPOSITION (average values for 100 grams of product)

COMPOUND	Cheese seasoning 22/24 months	Cheese seasoning 13/14 months
Proteins	33,0 g	31,1 g
Carbohydrates	none	none
Fat	28,4 g	26,8 g
Saturated fats	20,9 g	19,7 g
Fibre	none	none
Sodium	0,65 g	0,62 g
Cholesterol	83,0 mg	78,2 mg
Sodium Chloride	1,4 g	1,3 g
Vitamin A	270,0 mcg	254 mcg
Vitamin B1	34,0 mcg	
Vitamin B2	370,0 mcg	
Vitamin B6	110,0 mcg	
Vitamin B12	4,2 mcg	4,0 mcg
Vitamin PP	55,0 mcg	
Choline	40,0 mg	
Biothin	23,0 mcg	22 mcg
Calcium	1160,0 mg	1093 mg
Phosphorus	678,0 mg	639 mg
Zinc	4,0 mg	3,8 mg
Fat on dry matter	minimum 32%	minimum 41%
Water	31%	35%
Energy value (1 Kcal = 4,1868 Kj)	392 kcal	369 kcal

Additives are not allowed.



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NOTE FOR THE CONSUMER

The nutritional value of Parmigiano Reggiano cheese is closely linked to the quality of the proteins which constitute its major component (about 33%).

The biological value of the proteins depends on their essential amino acids content. In Parmigiano Reggiano the amino acids contribution is so well balanced that 100 grams provides the daily requirements of a male adult.

There are currently 21 known amino acids and Parmigiano Reggiano contains 17 of them, which means the cheese represents a far greater protein source than milk and is therefore the best nature has to offer. In actual fact, during the maturing process, the proteins are hydrolysed and transformed into free amino acids that are extremely easy to digest.

Parmigiano Reggiano's fat content is 28% and the majority of this consists of short-chain fats (easier to digest and fewer calories).

The cholesterol content is low if you consider that 100 grams of cheese contains approximately 80 mg. of cholesterol and daily intake of this steroid is officially recommended by national and international medical associations at least 300 mg. a day.

With regards to the mineral content, the main nutritional characteristics are closely linked to the level of calcium contributed.