



Packaged Paneer: Which One is the Best?

Paneer refers to a dairy product that is formed by curdling milk using sour milk, lactic acid, or citric acid. Essentially, paneer is a traditional milk-based product created through a process involving the coagulation of milk with acid and subsequent draining of the whey, often accompanied by heat treatment. Paneer finds extensive use as an ingredient in a variety of recipes, where it is combined with vegetables. It is primarily consumed in its raw form in northern, central, and western regions of India, while occasionally being enjoyed in other parts of the country as well.

A Consumer Voice Report

Paneer, also known as Chhana, is a type of fresh cheese. The process of making paneer involves adding a food acid to heated milk, causing the curds to separate from the whey. The curds are then placed in muslin or cheese cloth and pressed to remove excess water. To enhance its texture and appearance, the paneer is immersed in chilled

water for 2-3 hours. The specific preparation methods for paneer can vary based on its intended use and regional variations.

Paneer, an Indian cheese, is known for its significant nutritional value. It serves as an abundant source of protein and essential minerals

Comparative Product Testing

like potassium, magnesium, and calcium. When selecting a package of paneer, certain factors come into consideration for choosing the best product. To assist you in making an informed choice, we have prepared a guide that outlines the key parameters for wisely selecting your preferred paneer brand.

Reference Standards

The test programme for comparative testing of Paneer is mainly based on requirements of the Food Safety and Standards (Food Products

Standards and Food Additives) Regulations, 2011 and Indian standard IS: 10484:2021, specifications for Paneer. Product were tested as per the prescribed standard/validated test methods applicable to product.

Brands Tested

We conducted a comparative testing of 11 commonly available brands of packaged paneer. The following table showcases the scores obtained by each brand, enabling you to make an informed decision and choose the best option.

Rank	Score out of 100	Brand	Quantity, gm	MRP, Rs.	Use by, days	Marketer /Manufacturer
1	89	Ananda	200	95	15	Ananda dairy Limited
1	89	Madhusudan	200	85	15	SMC Group
2	88	Milk magic	200	90	50	Jayshri Gayatri Food Products Pvt Ltd
3	87	Verka	200	80	15	The Ropar Distt Co-op Milk Producers Union Limited
4	86	Namaste India	200	90	20	NIP Pvt Ltd
5	85	Vita	200	85	10	The Ballabgarh Co Op Milk Producers Union Ltd
5	85	Nova	200	82	15	Sterling Agro Industries Ltd
6	84	Amul	200	91	45	Gujarat Co-operative Milk Marketing federation Ltd
7	83	Patanjali*	180	90	15	Patanjali Ayurved Ltd
7	83	Mother Dairy	200	90	15	Mother Dairy Fruit & Vegetable Pvt. Ltd
8	82	Heritage	200	95	30	Heritage Food Ltd

Note: Use by date is given where shelf life of product is less than 7 days, * Made from cow milk

CV Recommendations

Top Performers

Ananda & Madhusudan

Value for Money

Madhusudan





Key Findings

- Based on the overall scores, Ananda and Madhusudan scored highest and ranked no. 1 followed by Milk Magic and Verka.
- Madhusudan is a VALUE FOR MONEY brand. However Verka is a competitive buy.
- In sensory tests, Namaste India scored highest followed by Ananda and Milk Magic.
- Brand Patanjali had highest milk fat followed by Madhusudan and Ananda. Five out of 11 brands namely Patanjali, Madhusudan, Ananda, Verka and Vita had milk fat on dry basis above 50 % by mass. Remaining brands had milk fat between 45.5-49.7 % by mass.
- Highest Protein was found in Namaste India followed by Milk Magic and Nova.
- Calcium was highest in Mother Dairy followed by Milk Magic and Nova.
- Cholesterol was lowest in Madhusudan followed by Verka and Mother Dairy.
- All brands passed microbiological safety parameters, thus safe to consume.
- At retailer/consumer level, national standard (FSSAI) prescribes microbiological safety requirements of Salmonella and Listeria Monocytogenes only. Other microbiological parameters as TPC, E.coli, Coliform, Yeast & Mould and S. aureus are not applicable at retailer from where consumers buy paneer. These requirements should be applicable at retailer/consumer purchase level also.
- Buy Paneer preferably packaged and kept in refrigerating condition. If there is no possibility of packaged Paneer available in your surrounding area, avoid consuming it in raw form. It is best if you make your paneer at home.

Comparative Performance Score

Parameter	Brand	Wt. %	Ananda	Madhusudan	Milk Magic	Verka	Namaste India	Vita	Nova	Amul	Patanjali	Mother dairy	Heritage
MRP, Rs.			95	85	90	80	90	85	82	91	90	90	95
Net Weight, gm			200	200	200	200	200	200	200	200	180	200	200
Sensory tests (Flavour, Colour & Appearance, Body & Texture, Package)		20	19.22	18.54	19.08	18.83	19.23	18.72	18.59	18.92	17.49	18.79	18.4
Milk fat		18	15.10	16.87	10.06	14.85	8.55	14.72	8.8	13.84	17.37	10.94	12.46
Protein		14	10.85	10.68	13.66	10.39	13.92	10.39	12.87	11.35	9.30	10.64	10.22
Microbiological safety (Salmonella & Listeria Monocytogenes)		10	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Cholesterol		8	7.46	7.95	5.82	7.81	6.37	6.68	7.6	5.24	6.71	7.62	5.7
Calcium		7	5.5	5.53	6.69	6.01	5.69	6.28	6.51	4.25	5.95	7.00	6.03
Energy value		6	4.94	4.74	6.00	4.25	5.78	4.68	5.4	4.83	3.83	4.03	4.10
Moisture		6	5.01	4.65	6.00	4.24	6	4.72	5.93	4.88	3.65	4.22	4.16
Titratable acidity		5	4.93	3.65	5.00	4.93	4.93	3.20	3.20	5.00	3.05	3.80	4.93
Markings		4	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Overall Score(Rounded off)		100	89	89	88	87	86	85	84	84	83	83	82

Ratings: >90 – Very good *****, 71-90- Good****, 51-70- Average***, 31-50- Poor**, <30 – Very Poor*



Test Parameters and Results

Sensory Tests- The tests were conducted in laboratory as per IS: 15346. Following sensory attributes were judged by trained panellists under supervision of experts and given their observations:

Flavour & taste- It should be free from off flavour and odour. Paneer shall have a good pleasant taste. It shall be free from defects as bitter, foreign, weedy, flat, musty, putrid, cheesy, smoky, stale and yeasty.

Colour & Appearance - It should have milky white colour and no extraneous colouring matter should be added to Paneer. It shall be free from defects as dull, dry, mouldy, foreign material, visible dirt

Body & Texture - Paneer should have a closely knit smooth and homogeneous texture, firm, cohesive and spongy body. Free from defects as crumbly, hard, mealy, coarse open pasty, rubbery, chewy, weak.

Package- Packaging should be in good condition and free from defects as damaged, soiled, and greasy.

In sensory tests, Namaste India scored highest followed by Ananda and Milk Magic. All the brands have creamy colour, flavour/taste was acceptable and packings were in good condition.

Milk Fat

Paneer, made from milk, primarily consists of milk fat, which plays a crucial role in maintaining good health and aiding the digestion of certain fat-soluble vitamins. The percentage of fat in paneer may vary due to factors such as the quality of fresh milk and variations in milk composition. The Food Safety and Standards Authority of India (FSSAI) mandates that paneer shall contain minimum 50 percent milk fat on dry basis. For medium-fat paneer, the fat content shall be more than 20.0 percent but less than 50.0 percent by mass. Low-fat paneer, on the other hand, shall have a maximum fat content of 20 percent by mass.

Brand Patanjali had highest milk fat followed by Madhusudan and Ananda. Five out of 11 brands namely Patanjali, Madhusudan, Ananda, Verka and Vita had milk fat on dry basis above 50 % by mass. Remaining brands had milk fat between 45.5-49.7 % by mass. However, milk fat on as is basis was as per declaration in all the brands tested.



Protein

Paneer is rich and inherent source of protein and calcium. National standard has not prescribed any requirement of protein, however protein is good for health. It helps keep your muscles strong and healthy. You need protein in your diet to help your body repair cells and make new ones. Protein is also important for growth and development in children and teens. It should not be less than the declared value.

Highest Protein was found in Namaste India followed by Milk Magic and Nova.

Microbiological Tests

Food Safety & Standards Authority of India has specified microbiological requirements for process hygiene criteria and food safety criteria. Microbiological parameters under process hygiene criteria are TPC, E.coli, Coliform, Yeast & Mould and S.aureus but these requirements are not applicable at retailer/consumer level.

We tested Salmonella and Listeria Monocytogenes under Food safety criteria of national standard (FSSAI). Salmonella and Listeria Monocytogenes are pathogenic bacteria and can seriously upset the stomach. They should be absent at retailer level.

Salmonella and Listeria Monocytogenes were absent in all the brands, thus all brands passed microbiological food safety criteria.

Cholesterol

Cholesterol is necessary for the normal permeability and function of the membranes that surround cells. Your body needs some cholesterol, but too much can raise your risk of heart disease. A diet high in cholesterol tends to increase blood cholesterol levels. There is no specified standard requirement, however it should be on lower side. It should not be higher than the declared value.

Brand Madhusudan has lowest cholesterol followed by Verka and Mother dairy. It was highest in Amul.



Calcium

Paneer is made of milk and hence is a rich source of calcium. For those who hate milk, calcium can be obtained from paneer. For persons who do not like drinking milk, dishes made with paneer are excellent substitutes for meeting their calcium needs. The calcium in paneer strengthens bones and the muscular system also prevents osteoporosis.

Highest amount of calcium was found in Mother dairy followed by Milk Magic and Nova. In most of the brands, calcium was lower than the declared value.

Energy Value

Food we eat provides energy in the form of calories that give our bodies fuel to perform all functions. We need a minimum amount of calories from food to sustain basic metabolic functions and more to carry out physical activities. It should not be less than the declared value.

Milk Magic had the highest energy value followed by Namaste India and Nova.

Moisture

Paneer is a highly perishable milk product which deteriorates rapidly because of high moisture content. Moisture up to a certain limit is an inherent part of fresh Paneer. It should not be more than 60% by mass as per FSSAI regulations. For low fat Paneer, moisture should be maximum 70 percent by mass.

All the brands were found well below the specified limit of standard. Brands Milk Magic and Namaste India had lowest moisture content followed by NOVA.

Titrateable Acidity

Titrateable Acidity as lactic acid is a measure of the amount of acid present. It should be 0.50 maximum in Paneer as per BIS standard.

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Titrate acidity in all the brands was within the specified limit of standard. Brands Milk Magic and Amul scored highest in this parameter.

Labelling/Marking requirements

As per the national standards following details should be clearly and indelibly marked on the product label:

- Name of product
- Ingredients
- Allergen declaration
- Name & Address of the Manufacturer/Marketer
- Batch or Code Number
- Net quantity
- date of manufacture
- Use by date
- Veg logo
- MRP
- Instructions for storage.
- Nutritional information
- FSSAI license number

All the brands fulfilled the marking / labelling requirements of national standards.

Packaging

Paneer should be packed in clean suitable food grade packages/wrappers which protect them from imparting off-flavour or odour. It also protects food from contamination of product. Packaging should not be torn/damaged.

All the brands were packed in printed high-density poly pack (plastic) material packaging. Packaging of all brands was found in good condition.

Net weight

The net weight of Paneer was measured and compared with their declared values. All the

brands had net weight above the declared quantity.

Why do you need to have Paneer?

- Paneer contains a good amount of fat, protein and calcium.
- Paneer is a good source of calcium, which helps build strong bones and teeth, and also prevents osteoporosis.
- Paneer is a good source of protein and bone health. In 100-gram of paneer, you will get 14-20-gram of protein.
- Owing to its high nutrition and high fat, paneer is good for children. It can be consumed once or twice a week.
- It would be better to avoid regular consumption of paneer for those with hypertension and diabetes due to its high level of fat and cholesterol. It can however, be used in small quantities for such patients once or twice a week.

Make your own Paneer at Home

You can make your own paneer by using the method given below-

- Bring the milk to a temperature just below boiling. Then turn off the heat.
- Add lemon juice or citric acid, 5 ml (one teaspoon) at a time. Stir the milk until the milk separates; the solid curds part from the green and watery whey.
- If milk does not start to curdle immediately, start by adding only one teaspoon of lemon juice at a time in a stepwise manner until the milk curdles. Do not add more lemon juice than necessary; otherwise the paneer will not be soft, as well as will taste sour and bitter.
- Stir gently and continuously.
- Curdling process is finished once the curds have stopped precipitating from the greenish coloured liquid whey.