## **COMPARATIVE TEST**



# Utensil Bars Going All the Way against the Grease

Today, dishes and utensils cleaning products are available in almost every house in one form or the other, the commonest form being the rectangular blue-coloured bar. These bars are used primarily for cleaning of utensils and crockery, and secondarily for kitchen shelf and basin or even cooker tops. To understand which brand among these blue bars is more effective than the other, which one claims more and does less, or vice versa, *Consumer Voice* collected their samples and subjected them to the rigours of a stringent lab test.

nce upon a time, life was relatively easy. Humans ate whatever nature produced, and did not need utensils to cook, serve, contain and reserve food. Then, fire was discovered and gradually cooked food became a delicacy, and utensils became a necessity. The chore of scrubbing, washing, cleaning and shining utensils became inevitable, making life a bit complicated. To make these chores easy and effective, our ancestors discovered ash, mud, paste of leaves, etc. Then, somebody invented a dishwashing soap, making old processes redundant. Next thing we knew, some smart minds had seen a business opportunity and turned dishwashing bars into brands.

Before going ahead with the test, *Consumer Voice* surveyed five cities and assessed the market share of each brand. Once shortlisted, samples of popular brands were directly bought from various retail stores across these cities and then sent to accredited labs for comparative testing.

Before the brands went under the scanner, the ombudsman committee, like always, set a few stringent testing parameters to see if all bars met the common man's expectations of what a utensil bar should do. The testing parameters cover the range from basics like packaging, markings on packets and weight, to comprehensive checking of their solubility, alkalinity, lather production and, of course, their ability to clean and shine.

### **UTENSIL BARS**

#### **BRANDS TESTED**

Rank	Brand
1	Nip
2	Nuera Silver
2	Scrubz (Reliance)
2	Clean Mate
2	Pril
3	Vim
3	Odopic
4	Exo
5	Expert
6	555

BEST BUY	VALUE FOR MONEY
Nip	Scrubz (Reliance)

#### **KEY FINDINGS**

- In performance tests, Nip is on top followed by Nuera Silver, Reliance, Clean Mate and Pril.
- Nip and Nuera Silver have the highest quantity of active ingredients.
- Vim, 555 and Exo contain insoluble matter above the allowed maximum limit of 80 per cent.
- Expert generates the highest foam height (lather) just after the generation of lather. However, after one minute, Vim remains with the highest foam (lather) height.
- Vim provides minimum mushiness as it is coated by a thin plastic film from three sides.

#### HOW MUCH DO THEY DISSOLVE IN WATER?

To check solubility, the bar's retention on a 250 microns sieve is tested. Ideally, the composition of the utensil bar should be such that all its ingredients get dissolved in water when tested. Using a sieve of 250 microns, the maximum limit of retention in bar soap solution has to be 0.1 per cent.

 Most of the brands are found well below the maximum limit (0.1%), except Nuera Silver (0.40%) and 555 (0.16%). These brands contain non-soluble matter.

#### WHAT MAKES THE PACK?

The utensil bar should be securely packed in plastic wrappers or paperboard containers or other material that adequately seals it and to retain the essential moisture of the utensil bar. Ideally, packaging should also be recyclable or biodegradable. Special packaging that meets all norms and would prevent damage to the product from water splashes is rated better.

Here are the results of the observation:

Grading on the basis of	of packaging
Brand	Observation*
Nip	Good
Nuera Silver	Very good
Reliance	Very good
Clean Mate	Good
Pril	Very good
Vim	Very good
Odopic	Very good
Exo	Excellent
Expert	Very good
555	Good

\*Good: 80%, very good: 90%, excellent: 100%



### **COMPARATIVE TEST**

#### **HOW ARE THEY MARKED?**

All utensil bar packets should contain the following information:

- a) Name of material and type
- b) Weight of the material in the package (when packed)
- c) Name of manufacturer and trademark
- d) Batch number
- e) Date of manufacture (month and year)
- f) Directions and instructions for optimal usage
- g) Maximum retail price
- h) List of key ingredients
- None of the tested brands provide information on directions and instructions of use and also the list of key ingredients.
- Clean Mate, Nip, Odopic, Vim, Expert, Exo and Nuera Silver do not provide batch number.

#### WHAT'S THE PERCENTAGE OF 'ACTIVE MATTER'?

Active matter means cleansing agents/compounds and is the key ingredient of utensil bars. The minimum requirement of these in the bar should be 8.0 per cent.

■ All the brands are found above the minimum standard requirement of 8 per cent. Nip has the highest amount of active matter (15.2 per cent).

#### WHAT ABOUT ACTIVE (RESERVE) ALKALINITY, **INSOLUBILITY IN ALCOHOL, VOLATILE MATTER, AND** LATHER?

Active alkalinity [IS requirement is 20 millilitres]

The maximum limit for active alkalinity is 20 millilitres. All the brands have been rated between the balanced levels of alkalinity keeping in mind its effect on the skin of users.

- All the brands are well below the maximum permissible limit and are therefore safe for human skin.
- Expert with 4.5 millilitres has the highest alkalinity among all tested brands and Odopic with 0.9 millilitres has the lowest.

#### **HOW MUCH THEY WEIGH?**

The net weight for all the brands was measured and compared with the respective declared values on packets. The maximum permissible error, as per Legal Metrology Rules 2011, is 9 grams for products weighing between 200 grams and 300 grams. For products weighing between 300 grams and 500 grams, the error cannot go beyond 12 grams.

All the brands are within the specified limit of net weight and none of them violate the permissible limit. However, Odopic is found to weigh less (4.0 grams) than the declared quantity.

Matter insoluble in alcohol, percent by weight [IS requirement is a maximum of 80%]

Insoluble material indicates the presence of quantity of filler material in the composition of utensil bars.

- Most of the brands are found to be just meeting the IS requirement in this test.
- While Vim and 555 marginally exceed the maximum permissible level, Expo is just above the mark at 80.4 per cent.

Moisture and volatile matter content at 105 °C [IS requirement is a maximum 10% of weight] Moisture is the amount of water present in the bar. The maximum requirement according to national standards is a maximum 10 per cent of weight.

All the brands are found well below the maximum limit of 10 per cent.

Foam/Lather [IS requirement is minimum 70 millilitre]

Foam/lather generated is the amount foam generated of after dissolving a fixed quantity of powdered utensil bar in a specified quantity of water. Thus, the test has been Lather test in progress at lab analysed at two stages:



one is just after the generation of lather and the other after one minute, to see how much foam height is left. This test indicates the foaming efficiency of the product.

Performance on production	the basis of foam/l	ather
Brand	Test Resu	ılt (ml)
	Instant	After 1 min
Nip	137	43
Nuera Silver	148	48
Reliance	143	48
Clean Mate	133	44
Pril	147	47
Vim	135	49
Odopic	135	45
Exo	147	48
Expert	152	48
555	102	48

During the first instant, Expert (152ml) generates the highest amount of foam, followed by Nuera Silver (148ml) and Pril (147ml). After the oneminute gap, Vim (49ml) remains with the highest foam height.

## TOUGH SOIL CLEANING [IS requirement is minimum 20% cleaning]

To evaluate the tough soil cleaning efficiency, a soiling mixture consisting of wheat flour (16.5%), besan flour (16.5%), rice flour (17%) and 50 per cent vegetable oil is prepared and spread evenly on a stainless steel plate using a brush. The soiled plate

#### **SENSORY TESTS**

- Leaving a few parameters aside, all the brands have performed well. The bars do the job that they are made for – that is, to clean and shine utensils without leaving any residue and without irritating the user.
- All the brands are found to have a lemon fragrance; the colour is generally a dull green, with Expert having an off-white hue. Also, no severe harshness or irritation is felt during the test, while after washing no residues are found on the washed plates. All the brands are able to clean the plates satisfactorily.

#### CLEANING EFFICACY: NUMBER OF PLATES CLEANED PER 5 GRAMS OF SAMPLE

[Requirement: Minimum 5 plates]

Cleaning efficiency is measured in terms of the number of utensils that can be cleaned with a fixed amount of utensil bar. A fixed quantity of bar (5 grams) is taken for each brand to check the cleaning efficiency. The test evaluates the efficiency of the product in removing grease and oil.

Performance or cleaning grease	n the basis of efficiency in 2 and oil
Brand	Test Result
	(number of plates cleaned
	per 5gm of sample)
Nip	8
Nuera Silver	8
Reliance	6
Clean Mate	7
Pril	5
Vim	7
Odopic	6
Exo	6
Expert	6
555	5

Nip and Nuera Silver demonstrate the ability to clean 8 plates; Clean Mate and Vim cleaned 7 plates. The other brands meet the minimum requirement of cleaning 5 plates, with a few of them managing to clean 6.

#### THE MUSHY STUFF

Mushiness is the property of a bar to absorb water and also to get dissolved in it.

- Vim scores the highest as it does not get dissolved easily due to its three-sided coating.
- Pril absorbs maximum water and also shows highest weight of soggy part, and so it has scored lowest.

## **COMPARATIVE TEST**



Caption: The bars are made to undergo tests to check their capacity to clean tough soil as also for any scratch that may be left on the dish

is put on a hot plate with temperature maintained at 325°C for about 2 minutes and later cooled at room temperature. The plate is then cleaned with utensil bars thoroughly.

All the brands are able to clean the tough soil adequately.

## SURFACE DAMAGE/SCRATCH [IS accepts only 2 scratches per utensil]

Stainless steels plates are soiled by applying two grams of oil and then cleaned using the bars being tested. Scratches are examined by visual inspection.

 Vim, Expert and Exo leave three scratches and hence get lesser scores.

#### ALL'S WELL THAT CLEANS WELL

To ensure a level playing field, the performance tests are conducted on newly bought stainless steel plates as per IS guidelines. The tests take place in conditions designed to simulate real-life kitchen conditions – thus, the bars are dipped in water to check for mushiness and for tough soil cleaning efficiency, and plates are heated in an oven at 300 °C for a set duration.

Based on the complete performance of the utensil bars tested in the laboratory, it is found that all brands

are comfortably able to meet the minimum quality and performance requirement. That some of the brands have performed better is possibly due to better quality of ingredients in their composition.

#### Soften Your Hands after Doing the Dishes

- 1. In a container take sea salt and pour enough olive oil to make a paste. Take half a teaspoon of this paste and rub your hands together for five to seven minutes. Wash off with warm water and use a moisturiser.
- 2. Take half a teaspoon of granulated sugar and a teaspoon of lime juice. Rub your hands together and massage. Instead of lime juice you could use olive oil.
- 3. Make a papaya hand scrub by mixing 1 tablespoon of mashed papaya, ½ teaspoon ground almonds, ½ teaspoon ground oatmeal (can be replaced by sugar or sea salt crystals), 1 teaspoon honey and ¼ teaspoon lemon juice. Refrigerate for 15 minutes and then scrub your hands for at least five minutes. Wash off with cold water.
- 4. Apply equal quantities of glycerine, rose water and lemon juice to hydrate and moisturize your hands.

COMPARATIVE PERFORMANCE RATINGS OF UTENSIL BARS

$\begin{array}{c} \text{Brand} \rightarrow \\ \text{Test} \\ \text{Parameters} \downarrow \end{array}$	% Weightage	Nip	Nuera Silver	Scrubz (Reliance)	Clean Mate	Pril	Vim	Odopic	Exo	Expert	555
Net weight (gm) & pack size		190 x 3	250	390 x 4	240 x 4	349 x 3	220 x 3	282 x 3	500	160 x 3	200 x 3
MRP, Rs		32	17	65	65	68	46	44	35	30	30
Cost per100 gm, in Rs		5.61	6.8	4.16	6.77	6.49	6.96	5.20	7.0	6.25	5.0
General Tests											
Packing	3	2.40	2.70	2.70	2.40	2.70	2.70	2.70	3.00	2.70	2.40
Net weight	3	2.92	3.0	2.99	2.98	3.0	3.0	2.91	3.0	3.0	2.95
Marking/Labelling	4	2.5	2.5	3.0	2.5	3.0	2.5	2.5	2.5	2.5	3.0
Physico-Chemical Tests											
Retention	3	2.7	0.75	2.85	2.85	2.7	1.8	2.7	2.85	1.8	1.5
Active matter	15	11.4	11.1	9.52	9.75	10.35	9.6	9.75	10.27	10.8	9.3
Alkalinity	4	3.78	3.73	3.66	3.79	3.84	3.79	4	3.83	3.58	3.76
Matter insoluble in alcohol	6	3.34	3.43	3.13	3.07	3.69	2.68	3.12	2.94	3.51	2.74
Moisture	5	4.55	4.95	4.2	4.8	4.9	4.7	4.65	3.85	3.2	4.5
Foam/Lather	10	8.27	9.43	9.16	8.28	9.15	9.04	8.48	9.39	9.56	7.94
Cleaning efficiency	15	12.6	12.6	10.2	11.4	9.0	11.4	10.2	10.2	10.2	9.0
Tough-soil cleaning	6	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Surface damage	8	4	4	4.8	4	4.8	3.2	4	3.2	3.2	4
Mushiness	8	6.32	6.0	7.12	7.6	5.24	8	7.56	7.24	6.56	6.60
Sensory Panel Tests	10	8.55	8.8	8.9	8.7	9	8.9	8.65	8.8	8.4	8.8
Total Score, % (Rounded off)	100	79	78	78	78	78	22	27	76	74	72
Rating: >91: Very Good*****, 71–90: Good****, 51–70: Average***,	71–90: Good	****, 51-	.70: Averag	çe***, 31–50	: Poor**, u	31–50: Poor**, up to 30: Very Poor*	ery Poor*				

## **UTENSIL BARS**