



Resume chart of refractometers

Type	No CAT	CAT (10-30°C)	LED	Range	Accuracy	Calibration
BRIX	HPD001	HPD012		0 - 10%	0.1 %	Distilled water
	HPD002	HPD013	HPD026	0 - 20%	0.1 %	Distilled water
	HPD003	HPD014	HPD027	0 - 32%	0.2 %	Distilled water
	HPD004	HPD015	HPD028	28 - 62%	0.2 %	Solution 28%sugar/water
	HPD005	HPD016	HPD029	45 - 82%	0.5 %	Solution 45%sugar/water
	HPD006	HPD017		58-92%	0.5 %	Solution 58%sugar/water
	HPD007	HPD018	HPD030	58 - 92% Bx 38 - 43 ° Bé 12 - 27% Water	0.5 % Bx 0.5 ° Bé 0.5 % Water	Bromonaphtalene + test piece
	HPD008	HPD019		0 - 50%	0.5 %	Distilled water
	HPD009	HPD020		0 - 80%	0.5 %	Distilled water
	HPD021			0-50% Bx 50-80% Bx	1 %	Distilled water
	HPD010			0 - 42% Bx 42-71% Bx 41-90 % Bx	0,2 %	Distilled water
SALINITY	HPF001	HPF004		0 - 100‰ Sal 1000-1070 g/mL	1‰ 0.001 g/mL	Distilled water
	HPF002	HPF005		0 - 28% Sal	0.2 %	Distilled water
		HPF007	HPF010	0 - 100‰ Sal 0 - 10% Bx 1000-1070 g/mL	1 ‰ 0.1 % 0.001 g/mL	Distilled water
	HPM001	HPM002	HPM004	0 - 12 g/dl de Serum protein 1.000 - 1.050 Specific weight (sg) 1.333 - 1.360 nD (refractive index)	0.2 % g/dL 0.002 sg 0.005 nD	Distilled water
VETERINARIA	HPM003			2 - 14 g/100 mL de Serum protein 1.000 - 1.060 Specific weight	0.1 0.001	
MOSTOS Y ALCOHOLES	HPP001	HPP014		0 - 80% Alcohol (w/w)	1 %	Distilled water
		HPH003		0 - 25% Alcohol probable	0.2 % Probable alcohol	
		HPH014		0-22° Bé 0-40% Bx	0.2° Bé 1 % Bx	Distilled water
		HPH002		0 - 25% Alcohol probable	0.2 % Probable alcohol	Distilled water
FRUIT JUICE		HPH005		0-140° Oe 0-25° KMW Babo 0-32% mash sacch	1° Oe 0.2° KMW Babo 0.2% mash sacch	Distilled water
		HPH006		0-140° Oe 0-25° KMW Babo 0-32% mash sacch	1° Oe 0.2° KMW Babo 0.2% mash sacch	Distilled water
		HPH007		0-170° Oe	2° Oe	Distilled water
	MILK	HPP002		-1%-20%	0.2%	Distilled water
BATTERIES AND FREEZES	HPK001			- 60 a 32°F (EG) -50 a 32 °F (PG) 1.15 - 1.30 sg (Batteries)	10 °F 0.01 sg	Distilled water
	HPK002			-50 a 0 °C (EG/PG) 1.15 - 1.30 sg (Batteries) -40 a 0 °C (Cleaner)	5 °C 0.01 sg 5°C	Distilled water
	HPK003	HPK004		-50 a 0 °C (EG/PG) 1.15 - 1.30 sg (Batteries) -40 a 0 °C (Cleaner)	5 °C 0,01 kg/L 5° C	Distilled water
		HPK005		-50 a 0 °C (EG/PG) 1.10 – 1.40 Kg/L (Batteries) -40 a 0 °C (Cleaner)	5 °C 0.01 Kg/L 10°C	Distilled water
	HPK008			-50 a 0 °C (EG/PG) 1.10 – 1.40 Kg/L (Batteries) 30-35% (Cleaner)	5 °C 0.01 Kg/L 10°C	Distilled water
REFRACTIVE INDEX	HPP003			1.333-1.400 nD 1.400-1.470 nD 1.470-1520 nD	0.0005 nD	

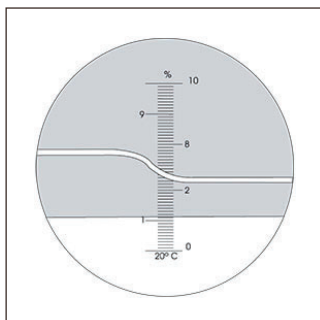


metal body

Features of metal body refractometers

- 1 | Each refractometer is supplied in a grey plastic box with a plastic pipette, a screwdriver, rubber eyecup and rubber handle.

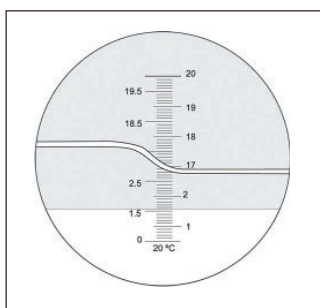
► 0-10% Brix



- 1 | Suitable for samples with low concentration of dissolved solids (lower than 10%) as for example tomatoes, low concentrated juices and industrial oils.
- 2 | Calibration is performed with distilled water adjusting to zero.

Code	Range	Accuracy	ATC (10-30°C)
HPD001	0-10% Bx	0.1%	No
HPD012	0-10% Bx	0.1%	Yes

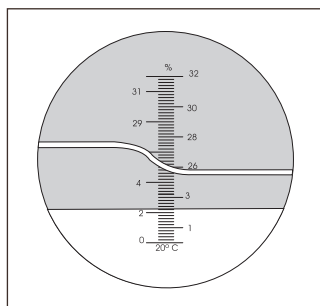
► 0-20% Brix



- 1 | Suitable for low concentrations (juices of fruits, alcohol-free beverages) except grape juice.
- 2 | Calibration is performed with distilled water.

Code	Range	Accuracy	ATC (10-30°C)
HPD002	0-20% Bx	0.1%	No
HPD013	0-20% Bx	0.1%	Yes

► 0-32% Brix



- 1 | Suitable for low concentrations usually used for fruits, juices, beverages, dairy products, milk products, industrial oils...
- 2 | Calibration is performed with distilled water.

Code	Range	Accuracy	ATC (10-30°C)
HPD003	0-32% Bx	0.2%	No
HPD014	0-32% Bx	0.2%	Yes

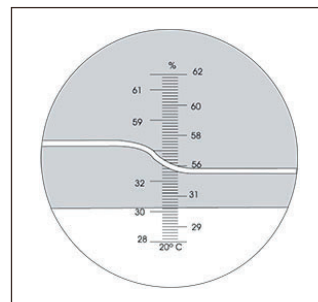


► 28-62% Brix

1 | Suitable for low concentrations usually used for fruits, juices, beverages, dairy products, milk products, industrial oils...

2 | Calibration is performed with a 28% sugar solution in distilled water, that means 28 g of sugar in a 100 ml of solution.

Code	Range	Accuracy	ATC (10-30°C)
HPD004	28-62% Bx	0.2%	No
HPD015	28-62% Bx	0.2%	Yes

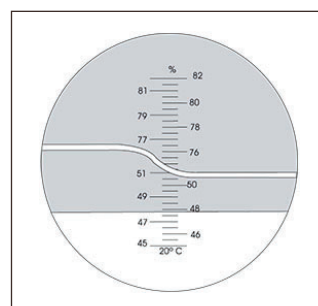


► 40-82% Brix

1 | Model suitable for high concentration as for example condensed milk, liquid caramel, high concentrated juices, jams, etc.

2 | Calibration is performed with a 45% sugar solution in distilled water, that means 45 g of sugar in a 100 ml of solution.

Code	Range	Accuracy	ATC (10-30°C)
HPD005	40-82% Bx	0.5%	No
HPD016	40-82% Bx	0.5%	Yes

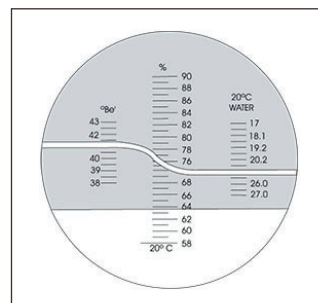


► 58-92% Brix

1 | Model for high concentrations of sugar in honey.

2 | Calibration is performed with 58% sugar solution in distilled water, that means 58 g of sugar in a 100 ml of solution.

Code	Range	Accuracy	ATC (10-30°C)
HPD006	58-92% Bx	0.5%	No
HPD017	58-92% Bx	0.5%	Yes

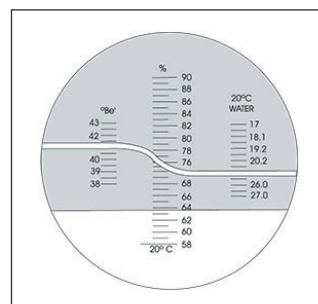


► 58-92% Brix | 38-43 ° Baume | 12-27% Water

1 | This refractometer is specially suited for analyzing the three main values in honey; sugar content, Baumé degrees and water content.

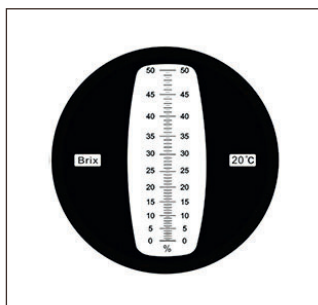
2 | Calibration is performed with a test piece and bromonaphtalene, both included.

Code	HPD007	HPD018
Range	58-92% Bx; 38-43 °Bé; 12-27% Water	
Accuracy	0.5% ; 0.5°; 0.5%	
ATC (10-30°C)	No	Yes





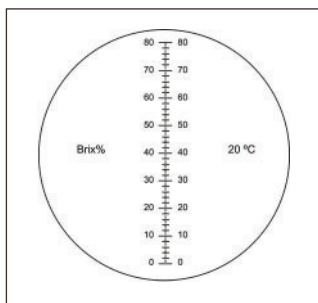
► 0-50% Brix



- 1 | Model used for concentrated solutions of grape juice.
- 2 | Calibration is performed with distilled water.

Code	Range	Accuracy	ATC (10-30°C)
HPD008	0-50% Bx	0.5%	No
HPD019	0-50% Bx	0.5%	Yes

► 0-80% Brix | 0-80% Brix (2 scales)



- 1 | This refractometer has a wide range 0-80% Brix, suitable for analyzing very different types of samples.
- 2 | The line in this model is in blue or white.
- 3 | It is used for fruit juices, alcohol-free beverages or even industrial oils.
- 4 | Calibration of models HPD009 and HPD020 is performed with distilled water.

Code	Range	Accuracy	ATC (10-30°C)
HPD009	0-80% Bx	0.5%	No
HPD020	0-80% Bx	0.5%	Yes
HPD021	0-80% Bx (0-50%; 50-80%)	1%	No

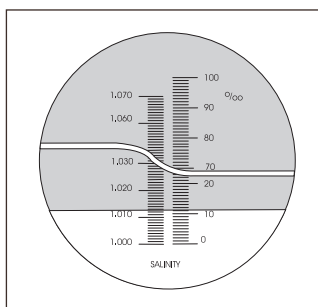
► 0-90% Brix | 0-90% Brix (3 scales)



- 1 | Has a wide range 0-80% Brix, it allows the measurement of very different types of samples.
- 2 | Calibration is performed with distilled water (model HPD011)

Code	Range	Accuracy	ATC (10-30°C)
HPD011	0-80% Bx	0.5%	No
HPD010	0-80% Bx (0-42% ; 42-71%; 71-90%)	0.2%	No

► 0-100‰ Salt



- 1 | Refractómetro de Accuracypara concentraciones medias de Salt bien en agua de mar natural o artificial, preparados alimenticios, etc. Dispone de escala de peso específico.
- 2 | La calibración se realiza conDistilled water.

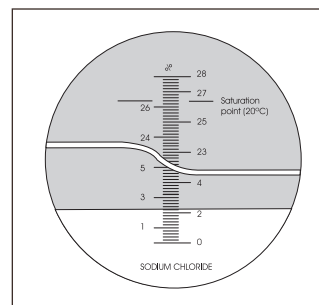
Code	Range	Accuracy	ATC (10-30°C)
HPF001	0-10‰ Saltt 1000-1070 g/L	1‰; 0.001	No
HPF004	0-100‰ Saltt 1000-1070 g/L	1‰; 0.001	Yes
HPF007	0-100‰ Salt 0-10% Bx;1000-1070 g/L	1‰; 0.1%; 0.001	Yes



► 0-28% Salt

- 1| Suitable to measure Salt concentration of sea water, fish farms, aquariums, brines...
- 2| Calibration is performed with distilled water.

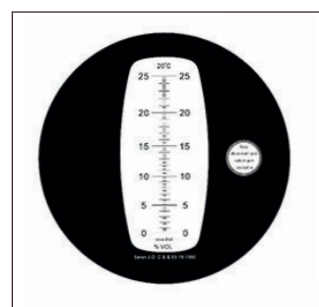
Code	Range	Accuracy	ATC (10-30°C)
HPF002	0-28% Salt	0.2%	No
HPF005	0-28% Salt	0.2%	Yes



► 0-25% probable alcohol - oenology

- 1| Refractómetro especialmente diseñado para medición del probable alcohol en uva.
- 2| Dispone de Compensación Automática de Temperatura (Range 10-30°C).
- 3| La calibración se realiza con Distilled water.

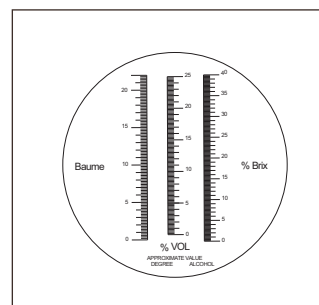
Code	Range	Accuracy	ATC (10-30°C)
HPH002	0-25% Probable alcohol	0.2%	Yes



► 3 scales - oenology

- 1| Suitable to measure alcohol content in grape juice, Baumé degrees and Brix degrees, thus allowing to check the ripening level of grapes before and during the harvest.
- 2| Calibration is performed with distilled water.

Code	Range	Accuracy	ATC (10-30°C)
HPH003	0-25% probable alcohol 0-22° Bé; 0-40% Bx	0.2% 0.2° 1%	Yes

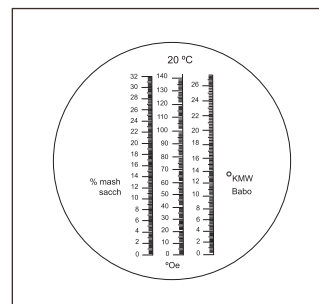


► 3 scales - oenology

- 1| Suitable to measure alcohol content in grape juice, Baumé degrees and Brix degrees, thus allowing to check the ripening level of grapes before and during the harvest.
- 2| Calibration is performed with distilled water.

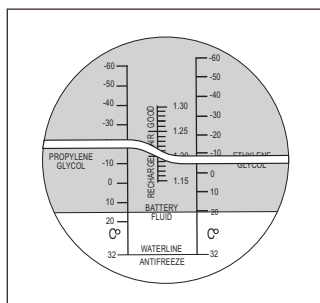
Code	Range	Accuracy	ATC (10-30°C)
HPH005	0-140° Oe 0-25° KMW Babo 0-32% mash sacch	1°; 0.2°; 0.2%	Yes
HPH006*	0-140° Oe 0-25° KMW Babo 0-32% mash sacch	1°/0.2°/0.2%	Yes

* Available until end of stock





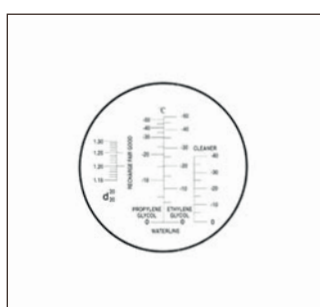
Batteries refractometers



1 | Suitable for measuring the freezing point of antifreezes based on propylene glycol and ethylene glycol, as well as the state of electrolytic solutions of batteries and cleaning liquids.

2 | Calibration is performed with distilled water.

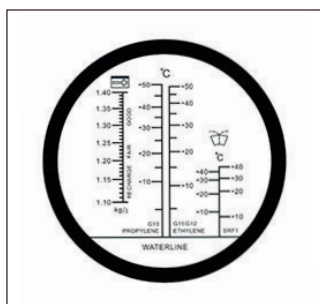
Code	Solution	Range	Accuracy	ATC
HPK001	Antifreeze	-60/32 °F (EG)	10 °F/0.01 sg	No
	Antifreeze	-50/32 °F (PG)		
	Electrolytic solution	1.15-1.30 sg		



Code	Solution	Range	Accuracy	ATC
HPK002	Antifreeze	-50 a 0 °C (EG/PG)	5 °C 0.01 sg 5°C	No
	Electrolytic solution	1.15-1.30 sg		
	Cleaning liquid	-40 a 0 °C		
HPK003*	Antifreeze	-50 a 0 °C (EG/PG)	10° C	No
	Electrolytic solution	1.15-1.30 sg	0,01 kg/L	
	Cleaning liquid	-40 a 0 °C	5° C	
HPK004*	Antifreeze	-50 a 0 °C (EG/PG)	10° C	Yes
	Electrolytic solution	1.15-1.30 sg	0,01 kg/L	
	Cleaning liquid	-40 a 0 °C	5° C	

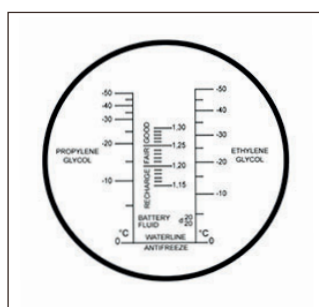
* Available until end of stock

Batteries refractometer



Code	Solution	Range	Accuracy	ATC
HPK005	Antifreeze	-50 a 0 °C (EG/PG)	5°C 0.01 Kg/L 10°C	Yes
	Electrolytic solution	1.10-1.40 Kg/L		
	Cleaning liquid	-40 to 0 °C		
HPK008	Antifreeze	-50 to 0 °C (EG/PG)	5°C 0.01 Kg/L 10°C	Yes
	Electrolytic solution	1.10-1.40 Kg/L		
	Cleaning liquid	-40 to 0 °C		
	UreaAddblue	0-40 %	0.2%	

Batteries refractometer



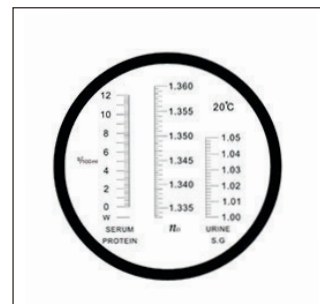
Code	Solution	Range	Accuracy	ATC
HPK006	Antifreeze	-50 a 0 °C (EG/PG)	5 °C	Yes
	Electrolytic solution	1.15-1.30 sg	0.01 sg	



► Hand, clinical 3 scales

- 1| It has three scales; proteins in serum, urine specific gravity and refractive index.
- 2| Calibration is performed with distilled water (the separating line must match the value 1.333 of the refractive index scale).

Code	Range	Accuracy	ATC (10-30°C)
HPM001	0 - 12 g/dl	0.2 % g/dL	No
	1.000-1.050 sg	0.002 sg	
	1.333-1.360 nD	0.005 nD	
HPM002	0 - 12 g/dl	0.2 % g/dL	Yes
	1.000-1.050 sg	0.002 sg	
	1.333-1.360 nD	0.005 nD	



► Hand, clinical URIVET

- 1| Designed for veterinary use, especially for the analysis of cats and dogs serum. Simple, easy and fast, only with a drop it gives you a result.

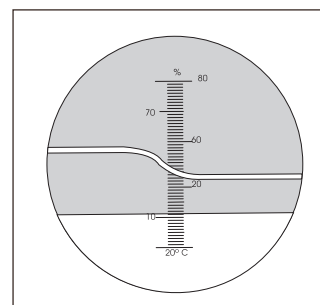
Code	Range	Accuracy	ATC (10-30°C)
HPM003	2-14 g/100 mL 1.000-1.060 sg	0.1 g/100 mL 0.001 sg	Yes



► Hand refractometer

- 1| Suitable to measure the alcohol degree in a solution, it can be used for wines and spirits taking into consideration other parameters.
- 2| Calibration is performed with distilled water.

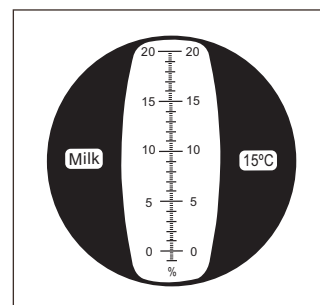
Code	Range	Accuracy	ATC (10-30°C)
HPP001	0-80% Alcohol (w/w)	1%	No



► Refractometer for milk

- 1| Suitable for measuring the water content in milk.
- 2| Calibration is performed with distilled water.

Code	Range	Accuracy	ATC (10-30°C)
HPP002	-1%-20%	0.2%	Yes





▶ Refractometer 1.333-1.520 nD, 3 scales



- 1 | For measuring the dissolved solid concentration (%Brix) or refractive index (nD) of aqueous solutions.
- 2 | Allow the analysis of a large variety of samples since they are provided with 3 scales that cover a wide range of measurement.

Code	Range	Accuracy	ATC (10-30°C)
HPP003	1.333-1.515 nD (3 scales) (1.333-1.400 nD 1.400-1.470 nD 1.470-1520 nD)	0.0005 nD	No

▶ Hand refractometers, accessories

Code	Description
HPP004	Cover prism plate, two pieces
HPP005	Blinker for hand refractometers
HPP006	Plastic Box for hand refractometers
HPP007	Test Piece for the calibration of Abbe Refractomet
HPP009	Lamp 6.3v, 2.5w for ABBE Refractometer 315
HPP008	Digital thermometer f/refractometer 325

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Discover how to comfortably use and calibrate our hand refractometers.

