

# milkshake ipa

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **38**
- SRM **5.6**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.9 liter(s)**
- Total mash volume **14.6 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **10.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **10.5 liter(s)** of **76C** water or to achieve **17.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (60.2%)	80 %	5
Grain	Karmelowy Jasny 30EBC	0.5 kg (12%)	75 %	30
Grain	Płatki owsiane	0.4 kg (9.6%)	85 %	3
Grain	Pszeniczny	0.25 kg (6%)	85 %	4
Sugar	Milk Sugar (Lactose)	0.5 kg (12%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	16 g	60 min	13.5 %
Aroma (end of boil)	Mosaic	20 g	0 min	10 %
Dry Hop	Citra	30 g	3 day(s)	12 %
Whirlpool	Mosaic	30 g	10 min	10 %
Dry Hop	Amarillo	50 g	3 day(s)	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	100 ml	Safale