

# Milkshake IPA

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- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **42**
- SRM **4.6**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **25.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **14.9 liter(s)**
- Total mash volume **20.4 liter(s)**

## Steps

- Temp **62 C**, Time **80 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **14.9 liter(s)** of strike water to **69.8C**
- Add grains
- Keep mash **80 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **25.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3.5 kg (58.2%)	81 %	5
Grain	Pszeniczny	1 kg (16.6%)	85 %	4
Grain	Oats, Flaked	0.75 kg (12.5%)	80 %	2
Grain	Karmelowy Jasny 30EBC	0.25 kg (4.2%)	75 %	30
Sugar	Milk Sugar (Lactose)	0.51 kg (8.5%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	15 g	60 min	8.8 %
Boil	Fuggles	10 g	60 min	4.5 %
Boil	Mosaic	10 g	45 min	12 %
Boil	Fuggles	10 g	45 min	4.5 %
Boil	Mosaic	10 g	15 min	12 %
Boil	Amarillo	10 g	15 min	8.8 %
Boil	Amarillo	25 g	0 min	8.8 %
Boil	Mosaic	30 g	0 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Flavor	Wanilia (2 laski w whisky)	10 g	Secondary	10 day(s)
Flavor	Truskawki mrożone	900 g	Secondary	10 day(s)