

# milkshake Ipa 7/21

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **27**
- SRM **6.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.7 liter(s)**

## Mash information

- Mash efficiency **57 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **68 C**, Time **50 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **20.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	5 kg (79.4%)	80 %	7
Grain	Pszeniczny	0.5 kg (7.9%)	85 %	3
Grain	Płatki owsiane	0.5 kg (7.9%)	60 %	3
Sugar	Milk Sugar (Lactose)	0.3 kg (4.8%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mandarina Bavaria	5 g	60 min	9 %
Boil	Mandarina Bavaria	20 g	30 min	9 %
Aroma (end of boil)	Mandarina Bavaria	50 g	2 min	9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	---

## Extras

Type	Name	Amount	Use for	Time
Other	wiśnie	1.5 g	Secondary	14 day(s)
Other	pulpa mango	1.2 g	Secondary	14 day(s)