

milk ipa

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **20**
- SRM **3.8**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **33 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **39.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **19.8 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **26.4 liter(s)** of **76C** water or to achieve **39.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.8 kg (23.7%)	80 %	5
Grain	Pilznieński	2.9 kg (38.2%)	81 %	4
Grain	Oats, Flaked	0.5 kg (6.6%)	80 %	2
Grain	Barley, Flaked	0.2 kg (2.6%)	70 %	4
Grain	Pszeniczny	1 kg (13.2%)	85 %	4
Grain	Biscuit Malt	0.2 kg (2.6%)	79 %	45
Sugar	Milk Sugar (Lactose)	1 kg (13.2%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	20 g	60 min	13.5 %
Whirlpool	Cascade	100 g	1 min	6 %

Yeasts

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