

MilkShake IPA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **40**
- SRM **6.2**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **16.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8 liter(s)**
- Total mash volume **10.6 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **76C**
- Sparge using **10.9 liter(s)** of **76C** water or to achieve **16.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1 kg (34.5%)	80 %	5
Grain	Viking Wheat Malt	0.1 kg (3.4%)	83 %	5
Grain	Viking Malt - cookie	0.35 kg (12.1%)	72 %	25
Grain	Viking Malt - golden ale	1 kg (34.5%)	75 %	12
Grain	Viking Malt - caramel sweet	0.1 kg (3.4%)	73 %	62
Grain	Oats, Flaked	0.1 kg (3.4%)	80 %	2
Sugar	Milk Sugar (Lactose)	0.25 kg (8.6%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	12.5 g	60 min	15.5 %
Dry Hop	Columbus/Tomahawk/Zeus	25 g	---	15.5 %
Dry Hop	Chinook	25 g	---	13 %
Boil	Lublin (Lubelski)	12.5 g	10 min	4 %
Boil	Kent Goldings	12.5 g	5 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	5.5 g	Fermentis