

Milkshake Mango APA

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **34**
- SRM **3.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

Mash information

- Mash efficiency **87 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.7 liter(s)**
- Total mash volume **15.6 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **11.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.8 kg (59.6%)	80 %	5
Grain	Oats, Flaked	0.8 kg (17%)	80 %	2
Grain	Weyermann - Carapils	0.3 kg (6.4%)	78 %	4
Sugar	Milk Sugar (Lactose)	0.8 kg (17%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	10 g	30 min	11.2 %
Boil	Galaxy	15 g	5 min	15 %
Boil	Cascade	8 g	5 min	8.1 %
Whirlpool	Galaxy	35 g	15 min	15 %
Whirlpool	Cascade	20 g	15 min	8.1 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Flavor	Pulpa mango	1700 g	Secondary	14 day(s)