

Milk Shake APA

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **32**
- SRM **2.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **53.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **64.3 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.8 liter(s)**
- Total mash volume **34.4 liter(s)**

Steps

- Temp **68 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **25.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **30 min** at **68C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **47.1 liter(s)** of **76C** water or to achieve **64.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	8 kg (83.3%)	90 %	4
Grain	Płatki owsiane	0.6 kg (6.3%)	85 %	3
Sugar	Milk Sugar (Lactose)	1 kg (10.4%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	50 g	60 min	5.2 %
Boil	Cascade	50 g	30 min	5.2 %
Boil	Cascade	50 g	15 min	5.2 %
Boil	Cascade	50 g	10 min	5.2 %
Boil	Cascade	50 g	5 min	5.2 %
Dry Hop	Cascade	150 g	6 day(s)	5.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	23 g	---

Extras

Type	Name	Amount	Use for	Time
Flavor	morele	3000 g	Secondary	14 day(s)