

Lulo Milkshake IPA

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **60**
- SRM **5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **14.8 liter(s)**

Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **11.5 liter(s)** of strike water to **71.5C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **6.3 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.1 kg (58.3%)	79 %	6
Grain	Pszeniczny	0.35 kg (9.7%)	82 %	4.5
Grain	Żytni	0.3 kg (8.3%)	81 %	9
Grain	Płatki owsiane	0.3 kg (8.3%)	85 %	3
Grain	Acid Malt	0.15 kg (4.2%)	80 %	8
Grain	Wheat, Torrified	0.1 kg (2.8%)	79 %	6
Sugar	Milk Sugar (Lactose)	0.3 kg (8.3%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	10 g	60 min	14.7 %
Boil	Galaxy	10 g	40 min	14.5 %
Boil	Galaxy	10 g	20 min	14.5 %
Aroma (end of boil)	Galaxy	30 g	0 min	14.5 %
Dry Hop	Galaxy	50 g	3 day(s)	14.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM55 Zielone Wzgórze	Ale	Slant	150 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Other	Pulpa z lulo	1000 g	Secondary	5 day(s)