

# Blueberry Muffin

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **13**
- SRM **6.4**
- Style **Fruit Beer**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **81 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Steps

- Temp **66 C**, Time **50 min**

## Mash step by step

- Heat up **14.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **66C**
- Sparge using **19.6 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Sugar	mleko	0.75 kg (13.8%)	51 %	---
Grain	Malteurop - Pale Ale	3.5 kg (64.2%)	83 %	6.5
Grain	Castle Malting - Biscuit Malt	0.8 kg (14.7%)	79 %	50
Grain	Płatki owsiane	0.4 kg (7.3%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	10 g	30 min	9.6 %
Whirlpool	Callista	50 g	25 min	3.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM54 Gorączka kalifornijska	Ale	Liquid	1522828 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Flavor	Borówka	1600 g	Secondary	---