

Milk Stout

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **40**
- SRM **26.5**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **23.4 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	4.5 kg (70.9%)	80 %	7
Sugar	laktoza	0.5 kg (7.9%)	80 %	---
Grain	Brown Malt (British Chocolate)	0.25 kg (3.9%)	70 %	128
Grain	Weyermann - Chocolate Wheat	0.25 kg (3.9%)	74 %	788
Grain	Carafa III	0.25 kg (3.9%)	70 %	1034
Grain	Caramel/Crystal Malt - 30L	0.1 kg (1.6%)	75 %	59
Grain	Płatki owsiane	0.5 kg (7.9%)	60 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	60 min	13.9 %
Aroma (end of boil)	East Kent Goldings	25 g	5 min	5.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Wyeast - 1084 Irish Ale	Ale	Liquid	100 ml	Wyeast Labs
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