

Mleczna kawo-czekolada

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **33**
- SRM **33.1**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **32.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.4 liter(s)**
- Total mash volume **29.8 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **73 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **22.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **15 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **32.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.63 kg (48.7%)	85 %	7
Grain	Weyermann pszeniczny jasny	0.97 kg (13%)	80 %	6
Grain	Weyermann - Caraamber	0.5 kg (6.7%)	75 %	65
Grain	Weyermann - Carafa III	0.76 kg (10.2%)	70 %	1024
Grain	Pilzneński	1.3 kg (17.4%)	81 %	4
Grain	Carahell	0.3 kg (4%)	77 %	26

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	25 g	50 min	12 %
Boil	Azacca	15 g	25 min	11 %
Boil	Lubelski	20 g	10 min	3.5 %

Yeasts

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

Type	Name	Amount	Use for	Time
Flavor	Laktoza	1000 g	Boil	30 min