

Milk&Coffee

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **23**
- SRM **27.9**
- Style **Sweet Stout**

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 **15 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **76C**
- Sparge using **21 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale ale (Malteurop)	4 kg (85.1%)	80 %	7
Grain	Strzegom Czekoladowy ciemny	0.25 kg (5.3%)	68 %	1200
Grain	Karmelowy Jasny 30EBC	0.25 kg (5.3%)	75 %	30
Grain	Strzegom Barwiący	0.2 kg (4.3%)	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	18 g	60 min	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	Fermentis

Extras

Type	Name	Amount	Use for	Time
Flavor	Iaktoza	500 g	Boil	15 min
Flavor	Kawa	100 g	Boil	5 min