

Cocoa milk stout

- Gravity **25.1 BLG**
- ABV **11.7 %**
- IBU **45**
- SRM **37.5**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **50 C**, Time **20 min**
- Temp **63 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **19.2 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **60 min** at **63C**
- Keep mash **15 min** at **78C**
- Sparge using **6.2 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (40.5%)	80 %	5
Grain	Monachijski Ciemny Steinbach	1 kg (13.5%)	100 %	30
Grain	Strzegom Wiedeński	1 kg (13.5%)	79 %	10
Grain	Strzegom Karmel 600	0.5 kg (6.8%)	68 %	601
Grain	Viking Barwiący Obłuszczone	0.1 kg (1.4%)	65 %	1000
Grain	Płatki owsiane	0.5 kg (6.8%)	60 %	3
Grain	Fawcett - Dark Crystal	0.2 kg (2.7%)	71 %	300
Grain	Briess - Dark Chocolate Malt	0.1 kg (1.4%)	60 %	827
Sugar	Milk Sugar (Lactose)	1 kg (13.5%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Książęcy	30 g	60 min	7 %
Boil	Izabella	30 g	60 min	5.1 %

Boil	Książęcy	20 g	20 min	7 %
Boil	Izabella	20 g	20 min	5.1 %
Aroma (end of boil)	Izabella	50 g	0 min	5.1 %
Aroma (end of boil)	Książęcy	50 g	0 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M42 New World Strong Ale	Ale	Dry	10 g	Mangrove Jack's

Extras

Type	Name	Amount	Use for	Time
Spice	kakao	20 g	Boil	5 min