

Milk

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **7**
- SRM **38.8**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.2 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **20.2 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale Flagon	5 kg (74.1%)	80 %	5
Grain	Strzegom Karmel 150	0.5 kg (7.4%)	75 %	150
Grain	Strzegom Czekoladowy ciemny	0.3 kg (4.4%)	68 %	1200
Grain	Strzegom pszenica prażona	0.15 kg (2.2%)	70 %	1000
Grain	Jęczmień palony	0.1 kg (1.5%)	55 %	985
Grain	Strzegom Barwiący	0.1 kg (1.5%)	68 %	1300
Grain	Płatki owsiane	0.6 kg (8.9%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Styrian Golding	20 g	60 min	3.6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale

Extras

Type	Name	Amount	Use for	Time
Flavor	Laktoza	650 g	Boil	10 min