

banana

- Gravity **10 BLG**
- ABV **4 %**
- IBU **22**
- SRM **30.5**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **14.4 liter(s)**

Steps

- Temp **40 C**, Time **40 min**
- Temp **65 C**, Time **20 min**
- Temp **72 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **10.8 liter(s)** of strike water to **43.3C**
- Add grains
- Keep mash **40 min** at **40C**
- Keep mash **20 min** at **65C**
- Keep mash **40 min** at **72C**
- Keep mash **20 min** at **72C**
- Keep mash **15 min** at **76C**
- Sparge using **21.2 liter(s)** of **76C** water or to achieve **28.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.25 kg (52.7%)	80 %	5
Grain	Karmelowy Jasny 30EBC	0.44 kg (10.3%)	75 %	30
Grain	Fawcett - Pszeniczny Czekoladowy	0.25 kg (5.9%)	73 %	1001
Grain	Weyermann pszeniczny jasny	0.25 kg (5.9%)	80 %	6
Grain	Fawcett - Pale Chocolate	0.2 kg (4.7%)	71 %	600
Grain	Strzegom Barwiący	0.2 kg (4.7%)	68 %	1300
Sugar	Milk Sugar (Lactose)	0.68 kg (15.9%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	18 g	70 min	11 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis