

Krowiak

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **25**
- SRM **45.7**
- 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 **17.3 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **72 C**, Time **15 min**

Mash step by step

- Heat up **17.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **15 min** at **72C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.7 kg (47%)	80 %	5
Grain	Płatki owsiane	0.5 kg (8.7%)	60 %	3
Grain	Weyerman pszeniczny czekoladowy	0.5 kg (8.7%)	65 %	1000
Grain	Weyerman Jęczmień palony	0.5 kg (8.7%)	65 %	1100
Grain	Viking Pilsner malt	1.55 kg (27%)	82 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	8 g	60 min	4.2 %
Boil	Iunga	12 g	60 min	11 %
Aroma (end of boil)	Cascade PL	26 g	15 min	5.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Spice	Laktoza	500 g	Boil	15 min