

Ciorny beret

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **31**
- SRM **37**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (47.6%)	79 %	6
Grain	Żytni	1 kg (15.9%)	85 %	8
Grain	Płatki owsiane	1.2 kg (19%)	85 %	3
Grain	Weyermann - Dehusked Carafo III	0.25 kg (4%)	70 %	1024
Grain	Fawcett - Pszeniczny Czekoladowy	0.25 kg (4%)	73 %	1001
Grain	Fawcett - Czekoladowy	0.25 kg (4%)	60 %	788
Grain	Caraaroma	0.25 kg (4%)	78 %	400
Grain	Special B Malt	0.1 kg (1.6%)	65.2 %	315

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	11 %

Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

WLP645 - Brettanomyces clausenii	Ale	Slant	200 ml	White Labs
----------------------------------------	-----	-------	--------	------------