

Czarna Pantera

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **29**
- SRM **32.8**
- Style **Oatmeal 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 **19.5 liter(s)**
- Total mash volume **26 liter(s)**

Steps

- Temp **68 C**, Time **50 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3.5 kg (53.8%)	79 %	6
Grain	Strzegom Monachijski typ I	0.5 kg (7.7%)	79 %	16
Grain	Viking Malt Karmelowy 150	0.5 kg (7.7%)	75 %	150
Grain	Viking Malt Karmelowy 300	0.5 kg (7.7%)	73 %	300
Grain	Viking Malt Czekoladowy Jasny	0.15 kg (2.3%)	68 %	400
Grain	Viking Malt Barwiący	0.15 kg (2.3%)	65 %	1400
Grain	Płatki owsiane	0.5 kg (7.7%)	85 %	3
Grain	Strzegom Karmel 600	0.2 kg (3.1%)	68 %	601
Grain	Strzegom Monachijski typ II	0.5 kg (7.7%)	79 %	22

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %

Yeasts

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

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