

## Czarna Materia [2]

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- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **59**
- SRM **39.1**
- Style **Black IPA**

### 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 **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **19.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (58.8%)	79 %	6
Grain	Strzegom Monachijski typ II	1 kg (14.7%)	79 %	22
Grain	Płatki owsiane	0.5 kg (7.4%)	85 %	3
Grain	Weyermann - Carafa III Special	0.5 kg (7.4%)	70 %	1300
Grain	Weyermann - Carared	0.5 kg (7.4%)	75 %	45
Sugar	Sugar, Table (Sucrose)	0.2 kg (2.9%)	100 %	2
Grain	Strzegom Barwiący	0.1 kg (1.5%)	68 %	1300

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	50 g	60 min	8.5 %
Boil	Centennial	30 g	15 min	8.5 %
Boil	Centennial	30 g	0 min	8.5 %
Whirlpool	Centennial	40 g	15 min	8.5 %
Dry Hop	Centennial	200 g	2 day(s)	8.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	Fermentis