

Czarny ląd

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **87**
- SRM **30.4**
- Style **Black IPA**

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 **21.3 liter(s)**
- Total mash volume **28.4 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **21.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (42.3%)	81 %	4
Grain	Strzegom Pale Ale	3 kg (42.3%)	79 %	6
Grain	Strzegom Monachijski typ I	0.5 kg (7%)	79 %	16
Grain	Fawcett - Pszeniczny Czekoladowy	0.4 kg (5.6%)	73 %	1001
Grain	Weyermann - Dehusked Carafo III	0.2 kg (2.8%)	70 %	1024

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Simcoe	30 g	60 min	13.2 %
Boil	Simcoe	20 g	5 min	13.2 %
Whirlpool	Simcoe	100 g	30 min	13.2 %
Dry Hop	Simcoe	100 g	2 day(s)	13.2 %

Yeasts

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

Wyeast - American Ale II	Ale	Liquid	150 ml	Wyeast Labs
-----------------------------	-----	--------	--------	-------------