

# Czarna ziemia

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- Gravity **15.9 BLG**
- ABV ---
- IBU **43**
- SRM **69.6**
- Style **Foreign Extra 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 **18 liter(s)**
- Total mash volume **24 liter(s)**

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	3.5 kg (58.3%)	81 %	6
Grain	Briess - Chocolate Malt	0.5 kg (8.3%)	60 %	690
Grain	Carafa III	0.5 kg (8.3%)	70 %	1034
Grain	Simpsons - Roasted Barley	0.2 kg (3.3%)	70 %	1084
Grain	smoked wheat malt	1 kg (16.7%)	80.5 %	6
Grain	Weyermann - Melanoiden Malt	0.3 kg (5%)	81 %	53

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	15.5 %
Boil	Saaz (Czech Republic)	40 g	15 min	4.5 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Spice	pu-erth	100 g	Secondary	1 day(s)