

# Czarna ziemia na grubo

- Gravity **21.1 BLG**
- ABV **9.4 %**
- IBU **60**
- SRM **60.8**
- Style **Russian Imperial 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 **13 %/h**
- Boil size **26 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27 liter(s)**
- Total mash volume **36 liter(s)**

## Steps

- Temp **67 C**, Time **55 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **27 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **55 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **8 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield  | EBC  |
|-------|-----------------------------|---------------|--------|------|
| Grain | Briess - Pilsen Malt        | 5 kg (55.6%)  | 80.5 % | 2    |
| Grain | Briess - Chocolate Malt     | 1 kg (11.1%)  | 60 %   | 690  |
| Grain | smoked wheat malt           | 2 kg (22.2%)  | 80.5 % | 6    |
| Grain | Weyermann - Chocolate Wheat | 0.5 kg (5.6%) | 74 %   | 788  |
| Grain | Carafa III                  | 0.5 kg (5.6%) | 70 %   | 1034 |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Iunga             | 50 g   | 60 min | 12.5 %     |
| Boil    | Lublin (Lubelski) | 30 g   | 15 min | 3.5 %      |
| Boil    | Chinook           | 7 g    | 60 min | 12 %       |

## Yeasts

| Name        | Type | Form  | Amount  | Laboratory |
|-------------|------|-------|---------|------------|
| Safale S-04 | Ale  | Slant | 1000 ml | Safale     |

## Extras

| Type  | Name    | Amount | Use for   | Time     |
|-------|---------|--------|-----------|----------|
| Spice | pu-erth | 200 g  | Secondary | 2 day(s) |