

Świąteczny czarny płyn

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **26**
- SRM **41.6**
- 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 **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.1 liter(s)**
- Total mash volume **28.4 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **22.1 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **30 min** at **72C**
- Sparge using **9.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 4 kg (63.3%) | 80 % | 5 |
| Grain | Jęczmień palony | 0.07 kg (1.1%) | 55 % | 985 |
| Grain | Monachijski | 1 kg (15.8%) | 80 % | 16 |
| Grain | Strzegom pszenica prażona | 0.25 kg (4%) | 70 % | 1000 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.25 kg (4%) | 73 % | 1001 |
| Grain | czekoladowy żytni | 0.25 kg (4%) | 75 % | 1000 |
| Grain | karmelowy ciemny | 0.5 kg (7.9%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Magnum | 15 g | 60 min | 13.5 % |
| Boil | puławski | 15 g | 10 min | 8.9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale | Dry | 11.5 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|-------|--------------------|--------|-----------|----------|
| Spice | kardamon | 3 g | Boil | 5 min |
| Spice | anyż | 5 g | Boil | 5 min |
| Spice | laska cynamonu | 2 g | Secondary | 7 day(s) |
| Spice | laska wanilii | 2 g | Secondary | 7 day(s) |
| Spice | goździki | 5 g | Boil | 5 min |
| Spice | curacao | 17 g | Boil | 5 min |
| Spice | gałka muszkatałowa | 3 g | Boil | 5 min |