

God hates us all

- Gravity **13.5 BLG**
- ABV ---
- IBU **46**
- SRM **40**
- Style **Robust Porter**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21.1 liter(s)**

Steps

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

Mash step by step

- Heat up **15.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **26.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|-----------------|-------|------|
| Grain | Strzegom Pale Ale | 4.22 kg (80.1%) | 79 % | 6 |
| Grain | Strzegom Czekoladowy ciemny | 0.77 kg (14.6%) | 68 % | 1200 |
| Grain | Karmelowy żytni Strzegom | 0.28 kg (5.3%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------|--------|--------|------------|
| Boil | Northern Brewer | 44 g | 60 min | 9 % |
| Boil | Kent Goldings | 22 g | 10 min | 5.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------------------|------|--------|--------|-------------|
| Wyeast - London Ale III | Ale | Liquid | 35 ml | Wyeast Labs |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | Mech Irlandzki | 4 g | Boil | 10 min |