

FES wersja poprawiona

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **50**
- SRM **36.7**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.5 liter(s)**
- Total mash volume **34 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **25.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|-------|-----|
| Grain | Pilzneński | 3.6 kg (42.4%) | 81 % | 4 |
| Grain | Strzegom Monachijski typ I | 2.4 kg (28.2%) | 79 % | 16 |
| Grain | Płatki owsiane | 1 kg (11.8%) | 60 % | 3 |
| Grain | Fawcett - Crystal | 0.5 kg (5.9%) | 70 % | 160 |
| Grain | Weyermann - Dehusked Carafo II | 0.5 kg (5.9%) | 70 % | 837 |
| Grain | Castle Chocolat | 0.5 kg (5.9%) | 60 % | 827 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | lunga | 54 g | 60 min | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|---------|------------|
| Safale US-05 | Ale | Dry | 13.75 g | Fermentis |