

FES

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **42**
- SRM **34.5**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **26.2 liter(s)**
- Total mash volume **33.7 liter(s)**

Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **26.2 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **10.3 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|-----------------|-------|------|
| Grain | Strzegom Pale Ale | 5.75 kg (76.9%) | 79 % | 6 |
| Grain | Strzegom Monachijski typ I | 0.57 kg (7.6%) | 79 % | 16 |
| Grain | Strzegom Czekoladowy ciemny | 0.35 kg (4.7%) | 68 % | 1200 |
| Grain | Jęczmień palony | 0.35 kg (4.7%) | 55 % | 985 |
| Grain | Płatki owsiane | 0.46 kg (6.1%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | Brewers Gold | 57.5 g | 60 min | 7.6 % |
| Boil | East Kent Goldings | 18.4 g | 5 min | 5.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 25.3 g | Safale |