

FES a'la doris 2.0

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **37**
- SRM **39.4**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss --- %
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.5 liter(s)**
- Total mash volume **31.4 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **23.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 6 kg (76.4%) | 80 % | 5 |
| Grain | Strzegom Monachijski typ I | 0.6 kg (7.6%) | 79 % | 16 |
| Grain | Płatki żytnie | 0.4 kg (5.1%) | 85 % | 3 |
| Grain | Strzegom Czekoladowy ciemny | 0.5 kg (6.4%) | 68 % | 1200 |
| Grain | Jęczmień palony | 0.35 kg (4.5%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Izabella | 50 g | 60 min | 6.1 % |
| Boil | Izabella | 50 g | 15 min | 6.1 % |