

## Foreign Extra Stout

---

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **31**
- SRM **28.6**
- Style **Foreign Extra 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.7 liter(s)**
- Total mash volume **25 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **18.7 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **12.9 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       | 4.3 kg (68.8%) | 80 %  | 5   |
| Grain | Strzegom Monachijski typ I | 1.4 kg (22.4%) | 79 %  | 16  |
| Grain | Jęczmień palony            | 0.3 kg (4.8%)  | 55 %  | 985 |
| Grain | Czekoladowy                | 0.25 kg (4%)   | 60 %  | 788 |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Warrior | 20 g   | 60 min | 15.5 %     |

### Yeasts

| Name                      | Type | Form  | Amount | Laboratory       |
|---------------------------|------|-------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale  | Slant | 300 ml | Fermentum Mobile |