

## #10: FES

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **42**
- SRM **43.2**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **14.5 liter(s)**

### Mash information

- Mash efficiency **67 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **15.7 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **6.2 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield | EBC  |
|-------|----------------------|----------------|-------|------|
| Grain | Pilzneński           | 2.3 kg (63%)   | 81 %  | 4    |
| Grain | Barley, Flaked       | 0.25 kg (6.8%) | 70 %  | 4    |
| Grain | Caraaroma            | 0.25 kg (6.8%) | 78 %  | 400  |
| Grain | Abbey Malt Weyermann | 0.25 kg (6.8%) | 75 %  | 45   |
| Grain | Jęczmień palony      | 0.2 kg (5.5%)  | 55 %  | 985  |
| Grain | Carafa III           | 0.2 kg (5.5%)  | 70 %  | 1034 |
| Grain | Płatki owsiane       | 0.2 kg (5.5%)  | 85 %  | 3    |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 25 g   | 60 min | 8.8 %      |

### Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 80 ml  | Safale     |

### Notes

- Pomysł na FES'a z receptury Alderaan - do uwarzenia w przyszłym tygodniu...Gestwa po Oatmealu zjadła do 5 Blg, 20 butelek, na dziś fest palone, ciekawe jak sie uloży...slody ciemne od początku zacierania

*Nov 1, 2017, 10:50 AM*