

## Burnt FES

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **31**
- SRM **100.4**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **9 liter(s)**
- Trub loss **5 %**
- Size with trub loss **9.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **11.3 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.2 liter(s)**
- Total mash volume **9.6 liter(s)**

### Steps

- Temp **63 C**, Time **60 min**

### Mash step by step

- Heat up **7.2 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **60 min** at **63C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **11.3 liter(s)** of wort

### Fermentables

| Type  | Name                      | Amount          | Yield | EBC  |
|-------|---------------------------|-----------------|-------|------|
| Grain | Strzegom Pilzneński       | 0.32 kg (12.3%) | 80 %  | 4    |
| Grain | Melanoiden Malt           | 0.3 kg (11.5%)  | 80 %  | 40   |
| Grain | Jęczmień palony           | 0.3 kg (11.5%)  | 55 %  | 985  |
| Grain | Strzegom Czekoladowy 1200 | 0.3 kg (11.5%)  | 68 %  | 1200 |
| Grain | Extra black               | 0.6 kg (23.1%)  | 65 %  | 1400 |
| Grain | Monachijski               | 0.58 kg (22.3%) | 80 %  | 16   |
| Sugar | XYLITOL                   | 0.2 kg (7.7%)   | 75 %  | 2    |

### Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Magnum | 10 g   | 60 min | 13.3 %     |

### Yeasts

| Name                      | Type | Form  | Amount | Laboratory       |
|---------------------------|------|-------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale  | Slant | 100 ml | Fermentum Mobile |