

FES podejście 19.09 KLASYK

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **53**
- SRM **37.1**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **15.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **5.9 liter(s)** of **76C** water or to achieve **15.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|------|
| Grain | Pilzneński | 2 kg (50%) | 81 % | 4 |
| Grain | Strzegom Monachijski typ I | 0.8 kg (20%) | 79 % | 16 |
| Grain | Barley, Flaked | 0.17 kg (4.3%) | 70 % | 4 |
| Grain | VM Pale Cookie | 0.2 kg (5%) | 70 % | 30 |
| Grain | VM Caramel Aromatic | 0.2 kg (5%) | 75 % | 200 |
| Grain | Carafa III Special | 0.2 kg (5%) | 70 % | 1034 |
| Grain | Jęczmień palony | 0.2 kg (5%) | 55 % | 985 |
| Grain | Oats, Flaked | 0.23 kg (5.7%) | 80 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 40 g | 60 min | 8.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 6.6 g | Fermentis |