

## FES

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **65**
- SRM **40.9**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **12.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

### Fermentables

| Type  | Name                            | Amount        | Yield | EBC  |
|-------|---------------------------------|---------------|-------|------|
| Grain | Pilzneński                      | 3 kg (71.4%)  | 81 %  | 4    |
| Grain | Caraaroma                       | 0.25 kg (6%)  | 78 %  | 400  |
| Grain | Weyermann - Dehusked Carafa III | 0.25 kg (6%)  | 70 %  | 1024 |
| Grain | Jęczmień palony                 | 0.2 kg (4.8%) | 55 %  | 985  |
| Sugar | Brown Sugar, Light              | 0.2 kg (4.8%) | 100 % | 16   |
| Grain | Płatki owsiane                  | 0.3 kg (7.1%) | 85 %  | 3    |

### Hops

| Use for             | Name               | Amount | Time   | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil                | Admiral            | 30 g   | 60 min | 13.3 %     |
| Aroma (end of boil) | East Kent Goldings | 15 g   | 15 min | 5.2 %      |

### Yeasts

| Name                      | Type | Form   | Amount | Laboratory       |
|---------------------------|------|--------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale  | Liquid | 350 ml | Fermentum Mobile |