

## 18 Bitter

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **47**
- SRM **12.4**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **23.8 liter(s)**
- Total mash volume **29.7 liter(s)**

### Fermentables

| Type                 | Name                        | Amount         | Yield | EBC  |
|----------------------|-----------------------------|----------------|-------|------|
| Grain                | Viking Pale Ale malt        | 4 kg (67.3%)   | 80 %  | 5    |
| Grain                | Strzegom Monachijski typ II | 1 kg (16.8%)   | 79 %  | 22   |
| Grain                | Weyermann Caramunich 3      | 0.5 kg (8.4%)  | 76 %  | 150  |
| Grain                | Płatki pszeniczne           | 0.2 kg (3.4%)  | 85 %  | 3    |
| Grain                | Żytni                       | 0.2 kg (3.4%)  | 85 %  | 8    |
| Grain                | Jęczmień palony             | 0.04 kg (0.7%) | 55 %  | 1400 |
| Dodawany na mash out |                             |                |       |      |

### Hops

| Use for | Name               | Amount | Time   | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil    | Chinook            | 24 g   | 60 min | 13 %       |
| Boil    | East Kent Goldings | 36 g   | 30 min | 5.1 %      |
| Boil    | East Kent Goldings | 18 g   | 15 min | 5.1 %      |

### Yeasts

| Name                       | Type | Form   | Amount | Laboratory       |
|----------------------------|------|--------|--------|------------------|
| FM10 O czym szumią wierzby | Ale  | Liquid | 30 ml  | Fermentum Mobile |