

## Kolonizator

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **22**
- SRM **4**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **5 %**
- Size with trub loss **29.4 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **37 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24.5 liter(s)**

### Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **25.4 liter(s)** of **76C** water or to achieve **37 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount          | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Pilzneński                 | 4.2 kg (65.2%)  | 81 %  | 4   |
| Grain | Viking Wheat Malt          | 1.68 kg (26.1%) | 83 %  | 5   |
| Grain | Strzegom Monachijski typ I | 0.56 kg (8.7%)  | 79 %  | 16  |

### Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | lubelski | 42 g   | 60 min | 4.4 %      |
| Boil    | mosaic   | 21 g   | 10 min | 10.4 %     |

### Yeasts

| Name | Type | Form  | Amount | Laboratory |
|------|------|-------|--------|------------|
| S-33 | Ale  | Slant | 70 ml  | ---        |

### Extras

| Type   | Name        | Amount | Use for | Time   |
|--------|-------------|--------|---------|--------|
| Fining | Whirlfloe T | 1.25 g | Boil    | 10 min |