

## kwiecień-plecień

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **51**
- SRM **5.9**
- Style **Specialty Beer**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **4 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **30 liter(s)**

### Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **73 C**, Time **40 min**

### Mash step by step

- Heat up **16.2 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **73C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **30 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 1.5 kg (27.8%) | 82 %  | 4   |
| Grain | Viking Munich Malt  | 2.5 kg (46.3%) | 78 %  | 18  |
| Grain | Pszeniczny          | 1 kg (18.5%)   | 85 %  | 4   |
| Grain | Żytni               | 0.4 kg (7.4%)  | 85 %  | 8   |

### Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Marynka           | 50 g   | 50 min | 10 %       |
| Aroma (end of boil) | Lublin (Lubelski) | 50 g   | 10 min | 4 %        |
| Whirlpool           | Cascade PL        | 40 g   | 2 min  | 5.2 %      |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 23 g   | Fermentis  |

### Extras

| Type   | Name       | Amount | Use for | Time   |
|--------|------------|--------|---------|--------|
| Fining | whirlflock | 0.5 g  | Boil    | 15 min |