

## LAB. #003 Pils

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **34**
- SRM **4.7**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6.6 liter(s)**
- Total mash volume **8.8 liter(s)**

### Steps

- Temp **66 C**, Time **50 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **6.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 1.8 kg (81.8%) | 80 %  | 4   |
| Grain | Caramunich® typ I   | 0.1 kg (4.5%)  | 73 %  | 80  |
| Grain | Pszenica prażona    | 0.3 kg (13.6%) | 70 %  | 3   |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 8 g    | 60 min | 10 %       |
| Boil    | Simcoe  | 10 g   | 15 min | 13.2 %     |
| Boil    | Simcoe  | 10 g   | 1 min  | 13.2 %     |

### Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 200 ml | Safale     |

### Extras

| Type   | Name            | Amount | Use for | Time   |
|--------|-----------------|--------|---------|--------|
| Spice  | Trawa cytrynowa | 12 g   | Boil    | 10 min |
| Fining | Mech irlandzki  | 5 g    | Boil    | 15 min |