

## Pils

- Gravity **11.4 BLG**
- ABV ---
- IBU **40**
- SRM **8.1**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.2 liter(s)**

### Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **75 C**, Time **5 min**

### Mash step by step

- Heat up **15.6 liter(s)** of strike water to **69.3C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **75C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount        | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński         | 3 kg (65.2%)  | 80 %  | 4   |
| Grain | Strzegom Monachijski typ II | 1 kg (21.7%)  | 79 %  | 22  |
| Grain | Pszeniczny                  | 0.2 kg (4.3%) | 85 %  | 4   |
| Grain | Abbey Castle                | 0.2 kg (4.3%) | --- % | 89  |
| Grain | zakwaszający                | 0.2 kg (4.3%) | 80 %  | 4   |

### Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Equinox | 20 g   | 60 min | 13.4 %     |
| Aroma (end of boil) | Citra   | 30 g   | 5 min  | 13.5 %     |

### Yeasts

| Name          | Type  | Form | Amount | Laboratory                         |
|---------------|-------|------|--------|------------------------------------|
| Saflager S-23 | Lager | Dry  | 11 g   | Fermentis Division of S.I.Lesaffre |