

I PILS

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **20**
- SRM **3.4**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **0 %**
- Size with trub loss **50 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **55 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **34.1 liter(s)**
- Total mash volume **43.9 liter(s)**

Steps

- Temp **63 C**, Time **35 min**
- Temp **72 C**, Time **35 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **34.1 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **35 min** at **63C**
- Keep mash **35 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **30.7 liter(s)** of **76C** water or to achieve **55 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 9 kg (92.3%) | 80 % | 4 |
| Grain | Weyermann - Acidulated Malt | 0.25 kg (2.6%) | 80 % | 6 |
| Grain | Weyermann - Carapils | 0.5 kg (5.1%) | 78 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil | lunga | 25 g | 60 min | 10.5 % |
| Boil | Saaz | 50 g | 15 min | 4.7 % |
| Boil | Saaz (Czech Republic) | 50 g | 1 min | 4.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------|-------|--------|---------|------------|
| Drożdże | Lager | Liquid | 5000 ml | Kdkdkdkd |