

Piwo VII

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **28**
- SRM **4.7**
- 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 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Keep mash **1 min** at **78C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|-------------|-------|-----|
| Grain | Briess - Pale Ale Malt | 5 kg (100%) | 80 % | 7 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|----------|------------|
| Dry Hop | Sybilla | 20 g | 7 day(s) | 5.7 % |
| Dry Hop | Cascade PL | 32 g | 7 day(s) | 7.8 % |
| Boil | Zula | 25 g | 55 min | 11.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------|------|-------|--------|------------|
| Saflager us-05 | Ale | Slant | 200 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------|--------------|--------|----------|------|
| Other | cukier biały | 118 g | Bottling | --- |
| Other | witamina c | 4 g | Bottling | --- |