

## pils 3

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- Gravity **14.6 BLG**
- ABV ---
- IBU **35**
- SRM **5.7**
- Style **Classic American Pilsner**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **10 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **32.3 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

### Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **19.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **32.3 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount        | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Pilzneński                 | 5 kg (76.9%)  | 81 %  | 4   |
| Grain | Strzegom Monachijski typ I | 1 kg (15.4%)  | 79 %  | 16  |
| Grain | caramel pils               | 0.5 kg (7.7%) | 80 %  | 5   |

### Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Magnum | 15 g   | 70 min | 13.5 %     |
| Boil    | Magnum | 15 g   | 30 min | 13.5 %     |
| Boil    | Perle  | 20 g   | 10 min | 7 %        |

### Yeasts

| Name                               | Type  | Form  | Amount | Laboratory      |
|------------------------------------|-------|-------|--------|-----------------|
| Mangrove Jack's M84 Bohemian Lager | Lager | Slant | 100 ml | Mangrove Jack's |