

## Pils 12\*

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **43**
- SRM **4.2**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **26.1 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25 liter(s)**

### Steps

- Temp **50 C**, Time **0 min**
- Temp **54 C**, Time **10 min**
- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**
- Temp **100 C**, Time **80 min**

### Mash step by step

- Heat up **20 liter(s)** of strike water to **53.8C**
- Add grains
- Keep mash **0 min** at **50C**
- Keep mash **10 min** at **54C**
- Keep mash **50 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Keep mash **80 min** at **100C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount       | Yield | EBC |
|-------|----------------------------|--------------|-------|-----|
| Grain | Pilzneński                 | 4 kg (80%)   | 81 %  | 4   |
| Grain | Strzegom Monachijski typ I | 0.5 kg (10%) | 79 %  | 16  |
| Grain | Briess - Carapils Malt     | 0.5 kg (10%) | 74 %  | 3   |

### Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Marynka               | 30 g   | 70 min | 10 %       |
| Boil    | Saaz (Czech Republic) | 30 g   | 15 min | 4.5 %      |

### Yeasts

| Name         | Type  | Form | Amount | Laboratory |
|--------------|-------|------|--------|------------|
| Brewgo Lager | Lager | Dry  | 15 g   | ---        |