

## Pils 12

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **54**
- SRM **3.6**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **2 %**
- Size with trub loss **30.9 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **38.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **70 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **24.1 liter(s)** of **76C** water or to achieve **38.1 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount       | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Strzegom Pilzneński  | 6 kg (85.7%) | 80 %  | 4   |
| Grain | Viking Pale Ale malt | 1 kg (14.3%) | 80 %  | 5   |

### Hops

| Use for             | Name                  | Amount | Time     | Alpha acid |
|---------------------|-----------------------|--------|----------|------------|
| Boil                | Magnum                | 40 g   | 60 min   | 13.5 %     |
| Boil                | Saaz (Czech Republic) | 30 g   | 20 min   | 4.5 %      |
| Aroma (end of boil) | Saaz (Czech Republic) | 40 g   | 15 min   | 4.5 %      |
| Dry Hop             | Saaz (Czech Republic) | 30 g   | 2 day(s) | 4.5 %      |

### Yeasts

| Name             | Type  | Form  | Amount | Laboratory |
|------------------|-------|-------|--------|------------|
| Saflager W 34/70 | Lager | Slant | 500 ml | Fermentis  |