

## pils niemiecki

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **3.6**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **21.1 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount      | Yield | EBC |
|-------|---------------------|-------------|-------|-----|
| Grain | Strzegom Pilzneński | 6 kg (100%) | 80 %  | 4   |

### Hops

| Use for | Name      | Amount | Time   | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil    | Magnum    | 20 g   | 50 min | 11.5 %     |
| Boil    | Tradition | 25 g   | 5 min  | 5.4 %      |
| Boil    | Tradition | 25 g   | 5 min  | 5.5 %      |

### Yeasts

| Name       | Type  | Form  | Amount | Laboratory |
|------------|-------|-------|--------|------------|
| wyest 2206 | Lager | Slant | 300 ml | ---        |