

Pils Niemiecki 2

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **43**
- SRM **4**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **3 %**
- Size with trub loss **23.7 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **28.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **35 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **35 min** at **72C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **28.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------|--------------|-------|-----|
| Grain | słód pilzneński | 4.5 kg (90%) | 80 % | 4 |
| Grain | Monachijski | 0.5 kg (10%) | 80 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil | Tettnang | 50 g | 60 min | 4 % |
| Boil | Saaz (Czech Republic) | 30 g | 60 min | 4 % |
| Boil | Hersbrucker | 30 g | 20 min | 4.5 % |
| Aroma (end of boil) | Hersbrucker | 14 g | 0 min | 3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------|-------|--------|---------|------------------|
| FM30 Bohemska rapsodia | Lager | Liquid | 2000 ml | Fermentum Mobile |