

## Pils Niemiecki 04.24

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- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **42**
- SRM **2.8**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **29.1 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **62 C**, Time **30 min**
- Temp **74 C**, Time **40 min**

### Mash step by step

- Heat up **17 liter(s)** of strike water to **68.2C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **40 min** at **74C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	5 kg (100%)	80 %	2.5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	30 g	60 min	4 %
Boil	Tradition	30 g	60 min	6 %
Boil	Tradition	15 g	20 min	6 %
Boil	Tettnang	20 g	20 min	3 %
Aroma (end of boil)	Tradition	15 g	0 min	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 2206 Bavarian Lager	Lager	Slant	250 ml	Wyeast Labs