

## #58 Niemiecki Pils

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **39**
- SRM **3.7**
- 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

### Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **3 min**

### Mash step by step

- Heat up **14.7 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **3 min** at **77C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.8 kg (98%)	81 %	4
Grain	Acid Malt (zakwaszający)	0.1 kg (2%)	58.7 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	8.6 %
Boil	Spalt	30 g	20 min	5.7 %
Boil	Spalt	30 g	5 min	5.7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM30 Bohemska rapsodia	Lager	Slant	300 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Fining	whirlfloc	1 g	Boil	10 min