

## #12 Nowofalowy Pils

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **35**
- SRM **3.8**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **2 %**
- Size with trub loss **22.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **28.2 liter(s)**

### Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **26.1 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**

### Mash step by step

- Heat up **20.3 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **28.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5.3 kg (91.4%)	81 %	4
Grain	Rice, Flaked	0.5 kg (8.6%)	70 %	2

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	10 %
Boil	lunga	20 g	45 min	10 %
Whirlpool	Sabro	50 g	1 min	13 %
Whirlpool	Amarillo	50 g	1 min	8.7 %
Dry Hop	Amarillo	50 g	2 day(s)	8.7 %
Dry Hop	Sabro	50 g	2 day(s)	13 %
Dry Hop	Galaxy	50 g	2 day(s)	15 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	23 g	Fermentis