

Urodzinowy German Pils

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **36**
- SRM **3.4**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.1 liter(s)**
- Total mash volume **10.8 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **8.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **76C**
- Sparge using **9.8 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.7 kg (100%)	81 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	13 g	60 min	10 %
Boil	Tettnang	25 g	15 min	4.7 %
Boil	Tettnang	25 g	0 min	4.7 %