

Pilsner Urquell

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **23**
- SRM **6.1**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **1 %**
- Size with trub loss **20.2 liter(s)**
- Boil time **160 min**
- Evaporation rate **1 %/h**
- Boil size **20.9 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.3 liter(s)**

Steps

- Temp **40 C**, Time **1 min**
- Temp **52 C**, Time **20 min**
- Temp **61 C**, Time **35 min**
- Temp **69 C**, Time **35 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **42.9C**
- Add grains
- Keep mash **1 min** at **40C**
- Keep mash **20 min** at **52C**
- Keep mash **35 min** at **61C**
- Keep mash **35 min** at **69C**
- Keep mash **10 min** at **78C**
- Sparge using **7.4 liter(s)** of **76C** water or to achieve **20.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Malting - Pilzneński 6-rzędowy	4.5 kg (83.3%)	80 %	5
Grain	Strzegom Wiedeński	0.5 kg (9.3%)	79 %	10
Grain	Monachijski	0.2 kg (3.7%)	80 %	16
Grain	Caramel/Crystal Malt - 30L	0.2 kg (3.7%)	75 %	59

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	5 g	20 min	10 %
Boil	Marynka	15 g	60 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Liquid	1 ml	Fermentum Mobile