

Poddymiony gebels.

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **40**
- SRM **4.3**
- 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 **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.6 liter(s)**
- Total mash volume **12.8 liter(s)**

Steps

- Temp **65 C**, Time **35 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **9.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **35 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Wędzony mix	3.1 kg (96.9%)	80 %	5
Grain	Weyermann - Carapils	0.1 kg (3.1%)	78 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hersbrucker	15 g	20 min	3 %
Boil	Hallertau Spalt Select	15 g	5 min	3.4 %
Boil	Marynka	18 g	60 min	10 %