

Pils (z resztek)

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **30**
- SRM **3.4**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.9 liter(s)**
- Total mash volume **15.8 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **64 C**, Time **40 min**
- Temp **73 C**, Time **20 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **11.9 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **73C**
- Keep mash **15 min** at **78C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (71.4%)	80 %	4
Grain	Pszeniczny	0.35 kg (8.3%)	85 %	4
Grain	Strzegom Wiedeński	0.5 kg (11.9%)	79 %	10
Grain	Acid Malt	0.1 kg (2.4%)	58.7 %	6
Sugar	Cane (Beet) Sugar	0.25 kg (6%)	100 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	6.4 g	60 min	10 %
Boil	lunga	9.7 g	60 min	11 %
Boil	Lublin (Lubelski)	11 g	60 min	4 %
Boil	Lublin (Lubelski)	15 g	15 min	4 %
Boil	East Kent Goldings	5 g	15 min	5.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Gozdawa GLW35	Lager	Dry	10 g	---
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