

## Pils dobrze chmielony

---

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **40**
- SRM **3.2**
- 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 **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

### Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **79 C**, Time **5 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **79C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (42.6%)	60 %	4
Grain	Strzegom Wiedeński	1 kg (21.3%)	62 %	10
Liquid Extract	WES ekstrakt słodowy jasny	1.7 kg (36.2%)	80 %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Premiant	25 g	60 min	6.6 %
Boil	Premiant	25 g	30 min	6.6 %
Boil	Lublin (Lubelski)	25 g	20 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	25 g	0 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale