

## pils dolny

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **26**
- SRM **4.3**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **27.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

### Steps

- Temp **53 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **1 min**

### Mash step by step

- Heat up **15.6 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **27.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (96.2%)	81 %	4
Grain	Strzegom Karmel 30	0.2 kg (3.8%)	75 %	40

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	60 min	4 %
Boil	Lublin (Lubelski)	30 g	20 min	4 %
Boil	Lublin (Lubelski)	40 g	10 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
w-34/70	Lager	Dry	11 g	---

### Notes

- franekca.pl.tl  
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