

## Szybki pils na odpi...

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **20**
- SRM **4.4**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **5 %**
- Size with trub loss **29.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **35.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

### Steps

- Temp **54 C**, Time **15 min**
- Temp **67 C**, Time **45 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **20.4 liter(s)** of strike water to **59.7C**
- Add grains
- Keep mash **15 min** at **54C**
- Keep mash **45 min** at **67C**
- Keep mash **10 min** at **75C**
- Sparge using **21.8 liter(s)** of **76C** water or to achieve **35.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	5.8 kg (85.3%)	81 %	4
Grain	Monachijski	1 kg (14.7%)	80 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	8.8 %
Whirlpool	Saaz (Czech Republic)	35 g	15 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	23 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	5 g	Boil	20 min
Water Agent	Kwas mlekowy	4 g	Mash	5 min

Wysładzanie 9 L wody				
Water Agent	Gips	3 g	Mash	60 min