

## pszeniczny pilsik - no sparge

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **64**
- SRM **3.5**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **6 %**
- Size with trub loss **19.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **22.1 liter(s)**

### Mash information

- Mash efficiency **64 %**
- Liquor-to-grist ratio **4.41 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **29.5 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (45.9%)	81 %	4
Grain	Pszenica niesłodowana	1.7 kg (31.2%)	75 %	3
Grain	Słód pszeniczny	1 kg (18.3%)	82 %	---
Grain	łuska ryżowa	0.25 kg (4.6%)	1 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga szyszka	20 g	60 min	10 %
Boil	Magnat	20 g	55 min	12 %
Boil	Marynka	12 g	15 min	8 %
Aroma (end of boil)	Marynka	15 g	5 min	8 %
Aroma (end of boil)	Oktawia bardzo słaba goryczka mimo 7,8 alfa otwarta	20 g	2 min	4 %
Whirlpool	relax	30 g	5 min	1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
w34	Lager	Dry	11 g	Safale

### Extras

Type	Name	Amount	Use for	Time
Flavor	esencja chmielowa	1 g	Secondary	1 day(s)