

# pils I

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **35**
- SRM **4**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **11 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (75%)	80 %	4
Grain	Castle Malting - Pszeniczny	1 kg (25%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	6.5 %
Boil	Magnat	4 g	60 min	12.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
gozdawa german lager W35	Lager	Dry	10 g	gozdawa

## Extras

Type	Name	Amount	Use for	Time
Water Agent	gips piwoarski	5 g	Mash	0 min
Water Agent	mech irlandzki	5 g	Boil	10 min