

# Ale Pils 1

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **28**
- SRM **8.7**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **28.5 liter(s)**

## Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **73C**
- Keep mash **15 min** at **78C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **28.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilzneński (Strzegom)	2.5 kg (50%)	80 %	4
Grain	Viking Pale Ale malt	2 kg (40%)	80 %	6
Grain	Strzegom Karmel 300	0.25 kg (5%)	73 %	300
Grain	Viking Słód Wędzony Torfem	0.25 kg (5%)	81 %	7

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	8.8 %
Boil	Oktawia	10 g	75 min	7.8 %
Aroma (end of boil)	Lublin (Lubelski)	25 g	10 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	11.5 g	Safbrew

## Extras

Type	Name	Amount	Use for	Time
Flavor	kawa czekoladowa	50 g	Boil	75 min