

# Gorzki Lis

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **39**
- SRM **9.3**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **74 C**, Time **10 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **17.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **10 min** at **74C**
- Keep mash **10 min** at **76C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5.5 kg (96.5%)	80 %	5
Grain	Strzegom Czekoladowy 400	0.2 kg (3.5%)	68 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Marynka	30 g	60 min	10 %
Boil	boadicea	20 g	20 min	5.2 %
Boil	boadicea	20 g	1 min	5.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Liberty Bell Ale M36	Ale	Dry	5 g	---

## Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	10 g	Mash	---