

# Lichtenhainer v2

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- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **17**
- SRM **2.6**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **1 %**
- Size with trub loss **23.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **25.6 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **6.5 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **20.5 liter(s)** of strike water to **67.4C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **25.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	1 kg (31.7%)	80 %	3
Grain	Pszeniczny	1 kg (31.7%)	85 %	4
Grain	Viking Pale Ale malt	1 kg (31.7%)	80 %	5
Grain	Żytni	0.15 kg (4.8%)	85 %	8

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Eureka!	5 g	30 min	18 %
Aroma (end of boil)	Eureka!	20 g	5 min	18 %
Whirlpool	Eureka!	25 g	0 min	18 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM51 Grodzie Dębowe	Ale	Dry	11 g	Fermentis