

Lichtenhainer

- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **7**
- SRM **2.9**
- Style **Grodziskie/Graetzer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **15.8 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **12.3 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (57.1%)	81 %	4
Grain	Grodziski pszeniczny wędzony dębem	1.25 kg (35.7%)	80 %	3
Grain	Wędzony bukiem Viking Malt	0.25 kg (7.1%)	82 %	10

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tettnang	18 g	60 min	3.3 %