

Grodziski Lichtenhainer

- Gravity **11 BLG**
- ABV ---
- IBU **35**
- SRM **4.3**
- Style **Grodziskie/Graetzer**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **42 C**, Time **1440 min**
- Temp **65 C**, Time **60 min**
- Temp **71 C**, Time **15 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **45.7C**
- Add grains
- Keep mash **1440 min** at **42C**
- Keep mash **60 min** at **64C**
- Keep mash **60 min** at **65C**
- Keep mash **15 min** at **71C**
- Keep mash **5 min** at **77C**
- Sparge using **21.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------------|------------|-------|-----|
| Grain | Grodziski pszeniczny wędzony dębem | 2 kg (40%) | 80 % | 3 |
| Grain | Weyermann - Smoked Malt | 2 kg (40%) | 81 % | 6 |
| Grain | Weyermann - Acidulated Malt | 1 kg (20%) | 80 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 20 g | 90 min | 10 % |
| Boil | Marynka | 20 g | 20 min | 10 % |