

# Luiza

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **32**
- SRM **15.2**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.24 liter(s) / kg**
- Mash size **11 liter(s)**
- Total mash volume **14.4 liter(s)**

## Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **11 liter(s)** of strike water to **72C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	3 kg (88.2%)	80 %	3
Grain	Weyermann - Carawheat	0.2 kg (5.9%)	77 %	110
Grain	Weyermann - Chocolate Wheat	0.2 kg (5.9%)	74 %	900

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	13.5 %
Boil	Tomyski	30 g	15 min	2.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM51 Grodzie Dębowe	Wheat	Slant	150 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
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Fining	Whirlfloc T	1.25 g	Boil	15 min
Other	łuska ryżowa	200 g	Mash	1 min

## Notes

- Wariacja ciemne piwo grodziskie. Nazwane na cześć mojej kotki, która była ciemno dymna. Piwo ma wyjść lekkie ciemne, wędzono, palone i gorzkie. Może po warzeniu powstanie modyfikacja.  
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