

# Grodziskie 2024

- Gravity **7.6 BLG**
- ABV **2.9 %**
- IBU **22**
- SRM **2.4**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **3 %**
- Size with trub loss **11.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **24 %/h**
- Boil size **15.1 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **6 liter(s)**
- Total mash volume **7.7 liter(s)**

## Steps

- Temp **38 C**, Time **30 min**
- Temp **52 C**, Time **50 min**
- Temp **63 C**, Time **20 min**
- Temp **70 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **6 liter(s)** of strike water to **40.6C**
- Add grains
- Keep mash **30 min** at **38C**
- Keep mash **50 min** at **52C**
- Keep mash **20 min** at **63C**
- Keep mash **20 min** at **70C**
- Keep mash **5 min** at **78C**
- Sparge using **10.8 liter(s)** of **76C** water or to achieve **15.1 liter(s)** of wort

## Fermentables

| Type  | Name                               | Amount        | Yield | EBC |
|-------|------------------------------------|---------------|-------|-----|
| Grain | Grodziski pszeniczny wędzony dębem | 1.7 kg (100%) | 80 %  | 3   |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Tomyski | 20 g   | 60 min | 4.5 %      |
| Mash    | Tomyski | 5 g    | 60 min | 4.5 %      |

## Yeasts

| Name                | Type  | Form   | Amount | Laboratory       |
|---------------------|-------|--------|--------|------------------|
| FM51 Grodzie Dębowe | Wheat | Liquid | 500 ml | Fermentum Mobile |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|             |              |       |      |         |
|-------------|--------------|-------|------|---------|
| Water Agent | Łuska ryżowa | 180 g | Mash | 120 min |
|-------------|--------------|-------|------|---------|

## Notes

- Woda:

Twarda, 25-29 °n, pH 5,5

Zawartość jonów:

160 ppm SO<sub>4</sub><sup>2-</sup>

120 ppm Ca<sup>2+</sup>

70 ppm Cl<sup>-</sup>

32 ppm Mg<sup>2+</sup>

35 ppm Na<sup>+</sup>

*Apr 24, 2024, 9:08 PM*