

# Zapiski na Grodziski

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- Gravity **7.6 BLG**
- ABV **2.9 %**
- IBU **23**
- SRM **4.1**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **52.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **38 C**, Time **45 min**
- Temp **63 C**, Time **21 min**
- Temp **72 C**, Time **22 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **17.7 liter(s)** of strike water to **41C**
- Add grains
- Keep mash **45 min** at **38C**
- Keep mash **21 min** at **63C**
- Keep mash **22 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **40.3 liter(s)** of **76C** water or to achieve **52.1 liter(s)** of wort

## Fermentables

| Type  | Name                          | Amount        | Yield | EBC |
|-------|-------------------------------|---------------|-------|-----|
| Grain | Słód pszeniczny wędzony dębem | 5 kg (84.7%)  | 80 %  | 9   |
| Grain | Słód pszeniczny ciemny Niemcy | 0.4 kg (6.8%) | 80 %  | 18  |
| Grain | Prażona pszenica              | 0.5 kg (8.5%) | 80 %  | 6   |

## Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Lublin (Lubelski) | 30 g   | 50 min | 4 %        |
| Boil                | Marynka           | 30 g   | 20 min | 10 %       |
| Boil                | Lublin (Lubelski) | 20 g   | 20 min | 4 %        |
| Aroma (end of boil) | Marynka           | 20 g   | 1 min  | 10 %       |

## Yeasts

| Name           | Type | Form | Amount | Laboratory |
|----------------|------|------|--------|------------|
| Fermentis S-33 | Ale  | Dry  | 11 g   | Fermentis  |