

# grodziskie

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- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **21**
- SRM **2.8**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **9.7 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

## Fermentables

| Type  | Name                               | Amount         | Yield | EBC |
|-------|------------------------------------|----------------|-------|-----|
| Grain | Grodziski pszeniczny wędzony dębem | 3 kg (83.3%)   | 80 %  | 3   |
| Grain | Viking Pale Ale malt               | 0.6 kg (16.7%) | 80 %  | 5   |

## Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Marynka           | 20 g   | 60 min | 8 %        |
| Aroma (end of boil) | cascade           | 20 g   | 0 min  | 7 %        |
| Aroma (end of boil) | Lublin (Lubelski) | 10 g   | 0 min  | 4 %        |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale K-97 | Ale  | Dry  | 11 g   | Fermentis  |