

# Mad Grodzisz

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- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **39**
- SRM **2.6**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **14 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **78C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

## Fermentables

| Type  | Name                               | Amount      | Yield | EBC |
|-------|------------------------------------|-------------|-------|-----|
| Grain | Grodziski pszeniczny wędzony olchą | 4 kg (100%) | 80 %  | 3   |

## Hops

| Use for   | Name     | Amount | Time     | Alpha acid |
|-----------|----------|--------|----------|------------|
| Boil      | Zula     | 20 g   | 60 min   | 10.3 %     |
| Whirlpool | Książęcy | 40 g   | 20 min   | 7 %        |
| Whirlpool | Zula     | 15 g   | 20 min   | 10.3 %     |
| Dry Hop   | Zula     | 50 g   | 3 day(s) | 8.3 %      |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
| K-97 | Ale  | Dry  | 11.5 g | Fermentis  |

## Extras

| Type        | Name              | Amount | Use for | Time   |
|-------------|-------------------|--------|---------|--------|
| Other       | Łuska ryżowa      | 200 g  | Mash    | 60 min |
| Water Agent | CaCl <sub>2</sub> | 5 g    | Mash    | 60 min |

|             |             |       |      |        |
|-------------|-------------|-------|------|--------|
| Water Agent | Lactic Acid | 5 g   | Mash | 60 min |
| Fining      | Whirlfloc-T | 2.5 g | Boil | 10 min |