

# Mad Grodzisz

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- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **31**
- SRM **2.8**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- 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 **50 C**, Time **15 min**
- 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 **54.3C**
- Add grains
- Keep mash **15 min** at **50C**
- 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 | Weyermann - Grodziski              | 2 kg (50%) | 80 %  | 4   |
| Grain | Grodziski pszeniczny wędzony olchą | 1 kg (25%) | 80 %  | 3   |
| Grain | Grodziski pszeniczny wędzony dębem | 1 kg (25%) | 80 %  | 3   |

## Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Magnum                | 15 g   | 60 min | 13.5 %     |
| Boil    | Saaz (Czech Republic) | 15 g   | 20 min | 3 %        |
| Boil    | Tomyski               | 15 g   | 20 min | 4 %        |
| Boil    | Saaz (Czech Republic) | 25 g   | 0 min  | 3 %        |
| Boil    | Tomyski               | 25 g   | 0 min  | 4 %        |

## Yeasts

| Name                | Type  | Form  | Amount | Laboratory       |
|---------------------|-------|-------|--------|------------------|
| FM51 Grodzie Dębowe | Wheat | Slant | 100 ml | Fermentum Mobile |

### 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 |