

# Grodziski Porter

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- Gravity **20.2 BLG**
- ABV **8.9 %**
- IBU **46**
- SRM **29.5**
- Style **Robust Porter**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **15.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.75 liter(s) / kg**
- Mash size **12.5 liter(s)**
- Total mash volume **17.1 liter(s)**

## Fermentables

| Type  | Name                               | Amount         | Yield | EBC |
|-------|------------------------------------|----------------|-------|-----|
| Grain | Monachijski                        | 3 kg (62.5%)   | 80 %  | 16  |
| Grain | Grodziski pszeniczny wędzony dębem | 1 kg (20.8%)   | 80 %  | 3   |
| Grain | Strzegom Karmel 150                | 0.25 kg (5.2%) | 75 %  | 150 |
| Grain | Carafa                             | 0.15 kg (3.1%) | 70 %  | 664 |
| Grain | Carafa II                          | 0.15 kg (3.1%) | 70 %  | 812 |
| Sugar | Brown Sugar, Dark                  | 0.25 kg (5.2%) | 100 % | 99  |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Magnum  | 15 g   | 60 min | 13.5 %     |
| Boil                | Marynka | 15 g   | 30 min | 10 %       |
| Aroma (end of boil) | Marynka | 10 g   | 5 min  | 10 %       |

## Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 150 ml | Safale     |