

## polska gurom

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **39**
- SRM **4.5**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **25.4 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**

### Mash step by step

- Heat up **19 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

| Type  | Name                   | Amount          | Yield | EBC |
|-------|------------------------|-----------------|-------|-----|
| Grain | Simpsons - Maris Otter | 2.55 kg (40.2%) | 81 %  | 6   |
| Grain | Pilzneński             | 1.9 kg (29.9%)  | 81 %  | 4   |
| Grain | Pszeniczny             | 1.25 kg (19.7%) | 85 %  | 4   |
| Grain | Oats, Flaked           | 0.65 kg (10.2%) | 80 %  | 2   |

### Hops

| Use for   | Name     | Amount | Time     | Alpha acid |
|-----------|----------|--------|----------|------------|
| Whirlpool | Książęcy | 50 g   | 15 min   | 7 %        |
| Whirlpool | lunga    | 50 g   | 15 min   | 11 %       |
| Whirlpool | Zula     | 50 g   | 15 min   | 8.3 %      |
| Whirlpool | Oktawia  | 50 g   | 15 min   | 7.1 %      |
| Dry Hop   | Książęcy | 50 g   | 3 day(s) | 7 %        |
| Dry Hop   | lunga    | 50 g   | 3 day(s) | 11 %       |
| Dry Hop   | Oktawia  | 50 g   | 3 day(s) | 7.1 %      |
| Dry Hop   | Zula     | 50 g   | 3 day(s) | 8.3 %      |

### Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                                    |     |     |        |           |
|------------------------------------|-----|-----|--------|-----------|
| Lallemand - LalBrew<br>Verdant IPA | Ale | Dry | 11.5 g | Lallemand |
|------------------------------------|-----|-----|--------|-----------|