

## krówka

- Gravity **15 BLG**
- ABV ---
- IBU **18**
- SRM **14.5**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

### Steps

- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **18.3 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **50 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type  | Name                         | Amount         | Yield  | EBC |
|-------|------------------------------|----------------|--------|-----|
| Grain | Briess - 2 Row Carapils Malt | 1.5 kg (24.6%) | 75 %   | 3   |
| Grain | Strzegom Pale Ale            | 4 kg (65.6%)   | 79 %   | 6   |
| Grain | Caramunich Malt              | 0.5 kg (8.2%)  | 71.7 % | 110 |
| Grain | Strzegom Karmel 300          | 0.1 kg (1.6%)  | 70 %   | 299 |

### Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Lublin (Lubelski) | 30 g   | 60 min | 4 %        |
| Aroma (end of boil) | Lublin (Lubelski) | 20 g   | 15 min | 4 %        |

### Yeasts

| Name                 | Type | Form | Amount | Laboratory |
|----------------------|------|------|--------|------------|
| Danstar - Nottingham | Ale  | Dry  | 11 g   | Danstar    |