

## #164 Kenio na żateckim

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **14**
- SRM **3.3**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **20.7 liter(s)**
- Trub loss **6 %**
- Size with trub loss **21.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **23.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.333 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **16.9 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **13 liter(s)** of strike water to **56.8C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **23.7 liter(s)** of wort

### Fermentables

| Type  | Name                    | Amount          | Yield | EBC |
|-------|-------------------------|-----------------|-------|-----|
| Grain | Viking Malt pilznieński | 3.45 kg (88.5%) | 82 %  | 4   |
| Grain | Viking Malt pszeniczny  | 0.45 kg (11.5%) | 81 %  | 6   |

### Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Aroma (end of boil) | Saaz Late CZ 2021 | 50 g   | 15 min | 4.65 %     |

### Yeasts

| Name                 | Type | Form  | Amount | Laboratory       |
|----------------------|------|-------|--------|------------------|
| FM52 Amerykański Sen | Ale  | Slant | 40 ml  | Fermentum Mobile |