

# Kolsh

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **25**
- SRM **3.5**
- Style **Kölsch**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **3 %**
- Size with trub loss **23.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

## Steps

- Temp **45 C**, Time **1 min**
- Temp **52 C**, Time **10 min**
- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **15 min**

## Mash step by step

- Heat up **18.2 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **1 min** at **45C**
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **65C**
- Keep mash **15 min** at **72C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **28.5 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 4.6 kg (88.5%) | 80 %  | 4   |
| Grain | Pszeniczny          | 0.2 kg (3.8%)  | 85 %  | 4   |
| Grain | Płatki pszeniczne   | 0.4 kg (7.7%)  | 80 %  | 3   |

## Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | lunga | 15 g   | 15 min | 11.5 %     |
| Boil    | lunga | 13 g   | 60 min | 11.5 %     |

## Yeasts

| Name                  | Type | Form   | Amount | Laboratory       |
|-----------------------|------|--------|--------|------------------|
| FM42 Stare Nadreńskie | Ale  | Liquid | 45 ml  | Fermentum Mobile |