

# Kölsch

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **27**
- SRM **3.4**
- Style **Kölsch**

## Batch size

- Expected quantity of finished beer **19.6 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.33 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **16.9 liter(s)**

## Steps

- Temp **53.5 C**, Time **10 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **13 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **10 min** at **53.5C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **22.7 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount          | Yield | EBC |
|-------|---------------------|-----------------|-------|-----|
| Grain | Strzegom Pilzneński | 3.45 kg (88.5%) | 80 %  | 4   |
| Grain | Pszeniczny          | 0.45 kg (11.5%) | 85 %  | 4   |

## Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Lublin (Lubelski)     | 30 g   | 60 min | 3.6 %      |
| Boil    | Lublin (Lubelski)     | 23 g   | 30 min | 3.6 %      |
| Boil    | Lublin (Lubelski)     | 10 g   | 10 min | 3.6 %      |
| Boil    | Saaz (Czech Republic) | 15.5 g | 10 min | 3.6 %      |

## Yeasts

| Name | Type | Form  | Amount  | Laboratory |
|------|------|-------|---------|------------|
| S-33 | Ale  | Slant | 1200 ml | ---        |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|        |                |     |      |        |
|--------|----------------|-----|------|--------|
| Fining | Mech Irlandzki | 4 g | Boil | 15 min |
|--------|----------------|-----|------|--------|