

## Koelsch - duze gary

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **21**
- SRM **3.5**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **1000 liter(s)**
- Trub loss **2 %**
- Size with trub loss **1020 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **1176 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **645 liter(s)**
- Total mash volume **860 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**

### Mash step by step

- Heat up **645 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **746 liter(s)** of **76C** water or to achieve **1176 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount       | Yield | EBC |
|-------|---------------------|--------------|-------|-----|
| Grain | Strzegom Pilzneński | 172 kg (80%) | 80 %  | 4   |
| Grain | Słód pszeniczny     | 43 kg (20%)  | 82 %  | 5   |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Chinook | 900 g  | 30 min | 13 %       |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-33 | Ale  | Dry  | 900 g  | Fermentis  |

### Extras

| Type   | Name   | Amount | Use for   | Time     |
|--------|--|--------|-----------|----------|
| Flavor | 300g świeżych liści kafir - blenderem ze spirtusem | 300 g  | Secondary | 2 day(s) |