

# PIWO PIWO KOLSCH

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **34**
- SRM **5.8**
- Style **Kölsch**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **32.6 liter(s)**

## Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3.55 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **24.3 liter(s)**

## Steps

- Temp **45 C**, Time **0 min**
- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **19 liter(s)** of strike water to **48.5C**
- Add grains
- Keep mash **0 min** at **45C**
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **19 liter(s)** of **76C** water or to achieve **32.6 liter(s)** of wort

## Fermentables

| Type  | Name               | Amount         | Yield | EBC |
|-------|--------------------|----------------|-------|-----|
| Grain | Pilzński           | 4 kg (74.8%)   | 81 %  | 4   |
| Grain | Pszeniczny         | 0.2 kg (3.7%)  | 85 %  | 160 |
| Grain | Strzegom Wiedeński | 1 kg (18.7%)   | 79 %  | 10  |
| Grain | zakwaszający       | 0.15 kg (2.8%) | 80 %  | 5   |

## Hops

| Use for             | Name     | Amount | Time   | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil                | magnum   | 31 g   | 60 min | 11.5 %     |
| Boil                | Tettnang | 15 g   | 15 min | 3.3 %      |
| Aroma (end of boil) | Tettnang | 20 g   | 0 min  | 3.3 %      |

## Yeasts

| Name             | Type | Form | Amount | Laboratory |
|------------------|------|------|--------|------------|
| Danstar - Kolsch | Ale  | Dry  | 11.5 g | Danstar    |

## Extras

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

| Type   | Name              | Amount | Use for | Time   |
|--------|-------------------|--------|---------|--------|
| Fining | Klarownik 1/2 tab | 2 g    | Boil    | 15 min |

## Notes

- 1. 21l wody o temp. 45°C + śruta
- 2. Ustalenie pH w granicach 5.4 - 5.5
- 3. Podgrzanie do 52°C i przerwa 10'
- 4. Podgrzanie do 64°C i przerwa 45'
- 5. Podgrzanie do 72°C i przerwa 15'
- 6. Podgrzanie do 78°C i filtracja.  
*Oct 14, 2017, 10:54 PM*
- 6,5 gr cukru na 1l  
*Oct 14, 2017, 10:54 PM*