

# TB KAZBEK PILS 13blg

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **39**
- SRM **5.6**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **2 %**
- Size with trub loss **20.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **63 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **15 min** at **63C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **24.9 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount         | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Pilzneński               | 2.6 kg (57.8%) | 81 %  | 4   |
| Grain | Monachijski              | 1.7 kg (37.8%) | 80 %  | 16  |
| Grain | Karmelowy Jasny<br>30EBC | 0.2 kg (4.4%)  | 75 %  | 30  |

## Hops

| Use for             | Name   | Amount | Time     | Alpha acid |
|---------------------|--------|--------|----------|------------|
| Boil                | Kazbek | 30 g   | 60 min   | 4.6 %      |
| Boil                | Kazbek | 50 g   | 20 min   | 4.6 %      |
| Aroma (end of boil) | Kazbek | 20 g   | 10 min   | 4.6 %      |
| Aroma (end of boil) | Kazbek | 30 g   | 5 min    | 4.6 %      |
| Dry Hop             | Kazbek | 40 g   | 4 day(s) | 4.6 %      |

## Yeasts

| Name             | Type  | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| Saflager W 34/70 | Lager | Dry  | 11.5 g | Fermentis  |