

# 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 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