

# Kozlak Królewski

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **30**
- SRM **18.4**
- Style **Traditional Bock**

## 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 **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **28.2 liter(s)**
- Total mash volume **37.6 liter(s)**

## Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **40 min**

## Mash step by step

- Heat up **28.2 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **40 min** at **72C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **32.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	5 kg (53.2%)	79 %	16
Grain	Strzegom Wiedeński	3 kg (31.9%)	79 %	10
Grain	Strzegom Monachijski typ II	0.3 kg (3.2%)	79 %	22
Grain	Weyermann - Caraamber	0.3 kg (3.2%)	75 %	65
Grain	Weyermann - Melanoiden Malt	0.3 kg (3.2%)	81 %	53
Grain	Carared	0.3 kg (3.2%)	75 %	45
Grain	Czekoladowy	0.2 kg (2.1%)	1 %	900

na 15min pod kolor

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	60 g	60 min	6 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	10 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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FM31 Bawarska Dolina	Lager	Liquid	300 ml	Fermentum Mobile
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## Notes

- Warzenie Kociołek automatyczny Klarstein Brauheld Pro 45L  
*Nov 5, 2023, 7:39 AM*