

# Grodziskie kombinowane

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- Gravity **7.8 BLG**
- ABV **3 %**
- IBU **41**
- SRM **4.3**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **17 %/h**
- Boil size **26.9 liter(s)**

## Mash information

- Mash efficiency **63 %**
- Liquor-to-grist ratio **4.3 liter(s) / kg**
- Mash size **15.5 liter(s)**
- Total mash volume **19.1 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **15.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	1 kg (27.8%)	80 %	3
Grain	Viking Wędzony czereśnią	2.6 kg (72.2%)	82 %	10

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Styrian Dragon	43 g	60 min	7.2 %
Aroma (end of boil)	Styrian Dragon	32 g	0 min	7.2 %