

## #162 Pepperoni Grodziskie

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **23**
- SRM **3.7**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **3 %**
- Size with trub loss **24.7 liter(s)**
- Boil time **85 min**
- Evaporation rate **14 %/h**
- Boil size **32.5 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **25.4 liter(s)**
- Total mash volume **31.8 liter(s)**

### Steps

- Temp **67 C**, Time **37 min**
- Temp **72 C**, Time **25 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **25.4 liter(s)** of strike water to **72.9C**
- Add grains
- Keep mash **37 min** at **67C**
- Keep mash **25 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **32.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	4 kg (63%)	80 %	3
Grain	Słód Wędzony Steinbach	2 kg (31.5%)	80 %	5
Grain	Weyermann - Carapils	0.35 kg (5.5%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga PL	10 g	55 min	9.6 %
Boil	lunga PL	10 g	30 min	9.6 %
Aroma (end of boil)	Izabela	25 g	6 min	7.6 %
Aroma (end of boil)	lunga PL	10 g	6 min	9.6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Windsor Ale	Ale	Dry	11 g	Danstar

## Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	2.5 g	Boil	12 min
Spice	B) Kebab	2 g	Secondary	14 day(s)
Spice	B) Gyros	2 g	Secondary	14 day(s)
Spice	B) Czosnek granulowany	1 g	Secondary	14 day(s)
Spice	B) Papryka ostra	0.5 g	Secondary	14 day(s)