

# Kooperejszyn - Imperial Oak Orange&Coffee New Zealand Dark Grodziskie

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **23**
- SRM **25.5**
- Style **Grodziskie**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.4 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziskie pszeniczny wędzony dębem	5 kg (93.5%)	80 %	5
Grain	Weyermann - Dehusked Carafa III	0.25 kg (4.7%)	10 %	1400
Grain	Fawcett - Pszeniczny Czekoladowy	0.1 kg (1.9%)	10 %	1001

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	11 %
Whirlpool	Rakau (NZ)	50 g	20 min	9.5 %
Whirlpool	Motueka	50 g	20 min	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
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Finning	Irish Moss	5 g	Boil	10 min
Water Agent	gips	4 g	Mash	60 min
Flavor	Bitter Orange Peel	25 g	Boil	5 min
Flavor	Sweet Orange Peel	25 g	Boil	5 min
Flavor	Kawa	50 g	Secondary	1 day(s)
Flavor	Oak Chips	40 g	Secondary	5 day(s)