

#39 The Physics

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **42**
- SRM **18.8**
- Style **American Amber Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **25.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **65 C**, Time **75 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **75 min** at **65C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|-----------------|--------|-----|
| Grain | Strzegom Pale Ale | 4.06 kg (76.6%) | 79 % | 6 |
| Grain | Karmelowy Jasny 30EBC | 0.31 kg (5.8%) | 75 % | 30 |
| Grain | Crystal 150 | 0.23 kg (4.3%) | 75 % | 150 |
| Grain | Special B Malt | 0.7 kg (13.2%) | 65.2 % | 315 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------------|--------|--------|------------|
| Boil | Amarillo | 25 g | 60 min | 8.5 % |
| Boil | Amarillo | 12.5 g | 30 min | 8.5 % |
| Aroma (end of boil) | Bramling Cross | 12.5 g | 5 min | 6.1 % |
| Aroma (end of boil) | Amarillo | 50 g | 5 min | 8.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------------------|------|-------|--------|------------|
| FM52 Amerykański Sen | Ale | Slant | 300 ml | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-----------|--------|---------|--------|
| Fining | whirlfloc | 0.5 g | Boil | 10 min |