

WLP066 APA

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **43**
- SRM **3.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **8 %**
- Size with trub loss **23.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **17.8 liter(s)**

Steps

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

Mash step by step

- Heat up **13.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|------------------|-------|-----|
| Grain | Viking Pale Ale malt | 1 kg (25.3%) | 80 % | 5 |
| Grain | Oats, Flaked | 1 kg (25.3%) | 80 % | 2 |
| Grain | Pilznieński | 0.875 kg (22.2%) | 81 % | 4 |
| Grain | Vienna Malt | 0.57 kg (14.4%) | 78 % | 8 |
| Grain | Pszeniczny | 0.5 kg (12.7%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Oktawia | 20 g | 50 min | 9.2 % |
| Aroma (end of boil) | Citra | 5 g | 10 min | 12.8 % |
| Aroma (end of boil) | Cascade | 5 g | 10 min | 6 % |
| Aroma (end of boil) | Falconer's Flight | 5 g | 10 min | 10.3 % |
| Whirlpool | Citra | 20 g | 20 min | 12.8 % |
| Whirlpool | Cascade | 20 g | 20 min | 6 % |
| Whirlpool | Falconer's Flight | 20 g | 20 min | 10.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|---------------------|-----|-------|--------|------------|
| WLP066 - London Fog | Ale | Slant | 666 ml | White Labs |
|---------------------|-----|-------|--------|------------|

Extras

| Type | Name | Amount | Use for | Time |
|-------------|------------------|--------|---------|--------|
| Water Agent | Gips | 8 g | Mash | 80 min |
| Water Agent | Kwas mlekowy 80% | 3 g | Mash | 80 min |