

 **Production**

PROPERTY	UNIT	STANDARD		ITIPLEN IC M10 C10	ITIPLEN IC M10 C15	ITIPLEN IC M10 C20	ITIPLEN IC M10 C30	ITIPLEN IC M10 C40	ITIPLEN IC M10 C50
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,96	1,00	1,04	1,12	1,21	1,33
MFI	g/10 min	ASTM D 1238	ISO 1133	10	10	10	10	10	10
MFI condition	°C/kg	ASTM D 1238	ISO 1133	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-	-	-	-
Filler content (calcium carbonate)	%	ASTM D 2584	ISO 3451	10	15	20	30	40	50
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	50	45	40	40	35	35
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	1200	1400	1500	1700	2000	2200
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	-	-	-	-	-	-
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	165	165	165	165	165	165
Flame behaviour	-	UL94		-	-	-	-	-	-



> ITIPLEN IC M10 C10

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M10 C15

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M10 C20

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M10 C30

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M10 C40

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M10 C50

Polypropylene copolymer, injection moulding, with calcium carbonate filler

PROPERTY	UNIT	STANDARD		ITIPLEN IC M15 C10	ITIPLEN IC M15 C15	ITIPLEN IC M15 C20	ITIPLEN IC M15 C30	ITIPLEN IC M15 C40	ITIPLEN IC M15 C50
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,96	1,00	1,04	1,12	1,21	1,33
MFI	g/10 min	ASTM D 1238	ISO 1133	15	15	15	15	15	15
MFI condition	°C/kg	ASTM D 1238	ISO 1133	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-	-	-	-
Filler content (calcium carbonate)	%	ASTM D 2584	ISO 3451	10	15	20	30	40	50
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	50	45	40	40	35	35
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	1200	1400	1500	1700	2000	2200
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	-	-	-	-	-	-
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	165	165	165	165	165	165
Flame behaviour	-	UL94		-	-	-	-	-	-


> ITIPLEN IC M15 C10

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M15 C15

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M15 C20

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M15 C30

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M15 C40

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M15 C50

Polypropylene copolymer, injection moulding, with calcium carbonate filler

PROPERTY	UNIT	STANDARD		ITIPLEN IC M20 C10	ITIPLEN IC M20 C15	ITIPLEN IC M20 C20	ITIPLEN IC M20 C30	ITIPLEN IC M20 C40	ITIPLEN IC M20 C50
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,96	1,00	1,04	1,12	1,21	1,33
MFI	g/10 min	ASTM D 1238	ISO 1133	20	20	20	20	20	20
MFI condition	°C/kg	ASTM D 1238	ISO 1133	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-	-	-	-
Filler content (calcium carbonate)	%	ASTM D 2584	ISO 3451	10	15	20	30	40	50
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	50	45	40	40	35	35
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	1200	1400	1500	1700	2000	2200
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	-	-	-	-	-	-
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	165	165	165	165	165	165
Flame behaviour	-	UL94		-	-	-	-	-	-


> ITIPLEN IC M20 C10

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M20 C15

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M20 C20

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M20 C30

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M20 C40

Polypropylene copolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IC M20 C50

Polypropylene copolymer, injection moulding, with calcium carbonate filler

PROPERTY	UNIT	STANDARD		ITIPLEN IC M10 T10	ITIPLEN IC M10 T15	ITIPLEN IC M10 T20	ITIPLEN IC M10 T30	ITIPLEN IC M10 T40
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,96	1,00	1,04	1,12	1,21
MFI	g/10 min	ASTM D 1238	ISO 1133	10	10	10	10	10
MFI condition	°C/kg	ASTM D 1238	ISO 1133	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-	-	-
Filler content (talc)	%	ASTM D 2584	ISO 3451	10	15	20	30	40
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	40	40	40	35	35
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	1400	1700	1900	2400	2800
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	75	78	83	85	85
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	165	165	165	165	165
Flame behaviour	-	UL94		-	-	-	-	-



> **ITIPLEN IC M10 T10**
Polypropylene copolymer,
injection moulding, with
talc filler

> **ITIPLEN IC M10 T15**
Polypropylene copolymer,
injection moulding, with
talc filler

> **ITIPLEN IC M10 T20**
Polypropylene copolymer,
injection moulding, with
talc filler

> **ITIPLEN IC M10 T30**
Polypropylene copolymer,
injection moulding, with
talc filler

> **ITIPLEN IC M10 T40**
Polypropylene copolymer,
injection moulding, with
talc filler

PROPERTY	UNIT	STANDARD		ITIPILEN IC M15 T10	ITIPILEN IC M15 T15	ITIPILEN IC M15 T20	ITIPILEN IC M15 T30	ITIPILEN IC M15 T40
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,96	1,00	1,04	1,12	1,21
MFI	g/10 min	ASTM D 1238	ISO 1133	15	15	15	15	15
MFI condition	°C/kg	ASTM D 1238	ISO 1133	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-	-	-
Filler content (talc)	%	ASTM D 2584	ISO 3451	10	15	20	30	40
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	40	40	40	35	35
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	1400	1700	1900	2400	2800
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	75	78	83	85	85
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	165	165	165	165	165
Flame behaviour	-	UL94		-	-	-	-	-



> **ITIPILEN IC M15 T10**
Polypropylene copolymer,
injection moulding, with
talc filler

> **ITIPILEN IC M15 T15**
Polypropylene copolymer,
injection moulding, with
talc filler

> **ITIPILEN IC M15 T20**
Polypropylene copolymer,
injection moulding, with
talc filler

> **ITIPILEN IC M15 T30**
Polypropylene copolymer,
injection moulding, with
talc filler

> **ITIPILEN IC M15 T40**
Polypropylene copolymer,
injection moulding, with
talc filler

Itiplen IC T

PROPERTY	UNIT	STANDARD		ITIPILEN IC M20 T10	ITIPILEN IC M20 T15	ITIPILEN IC M20 T20	ITIPILEN IC M20 T30	ITIPILEN IC M20 T40
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,96	1,00	1,04	1,12	1,21
MFI	g/10 min	ASTM D 1238	ISO 1133	20	20	20	20	20
MFI condition	°C/kg	ASTM D 1238	ISO 1133	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-	-	-
Filler content (talc)	%	ASTM D 2584	ISO 3451	10	15	20	30	40
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	40	40	40	35	35
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	1400	1700	1900	2400	2800
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	75	78	83	85	85
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	165	165	165	165	165
Flame behaviour	-	UL94		-	-	-	-	-

Itiplen IC T Polypropylene Copolymer

> **ITIPILEN IC M20 T10**
Polypropylene copolymer,
injection moulding, with
talc filler

> **ITIPILEN IC M20 T15**
Polypropylene copolymer,
injection moulding, with
talc filler

> **ITIPILEN IC M20 T20**
Polypropylene copolymer,
injection moulding, with
talc filler

> **ITIPILEN IC M20 T30**
Polypropylene copolymer,
injection moulding, with
talc filler

> **ITIPILEN IC M20 T40**
Polypropylene copolymer,
injection moulding, with
talc filler

Itiplen IC BK

PROPERTY	UNIT	STANDARD		ITIPLEN IC M10 BK	ITIPLEN IC M20 BK	ITIPLEN IC M10 Z50 BK
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,93	0,93	0,93
MFI	g/10 min	ASTM D 1238	ISO 1133	10	20	10
MFI condition	°C/kg	ASTM D 1238	ISO 1133	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-
Filler content	%	ASTM D 2584	ISO 3451	-	-	-
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	100-200	80-150	300
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	1000	1100	900
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	60	65	57
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	165	165	165
Flame behaviour	-	UL94		-	-	-

Itiplen IC BK Polypropylene Copolymer

> ITIPLEN IC M10 BK

Polypropylene copolymer, injection moulding, black

> ITIPLEN IC M20 BK

Polypropylene copolymer, injection moulding, black

> ITIPLEN IC M10 Z50 BK

Polypropylene copolymer, injection moulding, black

PROPERTY	UNIT	STANDARD		ITIPLEN IH M10 C10	ITIPLEN IH M10 C15	ITIPLEN IH M10 C20	ITIPLEN IH M10 C30	ITIPLEN IH M10 C40	ITIPLEN IH M10 C50
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,96	1,00	1,04	1,12	1,21	1,33
MFI	g/10 min	ASTM D 1238	ISO 1133	10	10	10	10	10	10
MFI condition	°C/kg	ASTM D 1238	ISO 1133	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-	-	-	-
Filler content (calcium carbonate)	%	ASTM D 2584	ISO 3451	10	15	20	30	40	50
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	30	30	30	30	30	25
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	1400	1600	1700	1900	2200	2400
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	80	83	85	90	90	93
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	165	165	165	165	165	165
Flame behaviour	-	UL94		-	-	-	-	-	-


> ITIPLEN IH M10 C10

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M10 C15

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M10 C20

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M10 C30

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M10 C40

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M10 C50

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

PROPERTY	UNIT	STANDARD		ITIPLEN IH M15 C10	ITIPLEN IH M15 C15	ITIPLEN IH M15 C20	ITIPLEN IH M15 C30	ITIPLEN IH M15 C40	ITIPLEN IH M15 C50
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,96	1,00	1,04	1,12	1,21	1,33
MFI	g/10 min	ASTM D 1238	ISO 1133	15	15	15	15	15	15
MFI condition	°C/kg	ASTM D 1238	ISO 1133	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-	-	-	-
Filler content (calcium carbonate)	%	ASTM D 2584	ISO 3451	10	15	20	30	40	50
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	30	30	30	30	30	25
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	1400	1600	1700	1900	2200	2400
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	80	83	85	90	90	93
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	165	165	165	165	165	165
Flame behaviour	-	UL94		-	-	-	-	-	-

Polypropylene Homopolymer

> ITIPLEN IH M15 C10

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M15 C15

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M15 C20

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M15 C30

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M15 C40

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M15 C50

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

PROPERTY	UNIT	STANDARD		ITIPLEN IH M20 C10	ITIPLEN IH M20 C15	ITIPLEN IH M20 C20	ITIPLEN IH M20 C30	ITIPLEN IH M20 C40	ITIPLEN IH M20 C50
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,96	1,00	1,04	1,12	1,21	1,33
MFI	g/10 min	ASTM D 1238	ISO 1133	20	20	20	20	20	20
MFI condition	°C/kg	ASTM D 1238	ISO 1133	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-	-	-	-
Filler content (calcium carbonate)	%	ASTM D 2584	ISO 3451	10	15	20	30	40	50
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	30	30	30	30	30	25
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	1400	1600	1700	1900	2200	2400
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	80	83	85	90	90	93
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	165	165	165	165	165	165
Flame behaviour	-	UL94		-	-	-	-	-	-


> ITIPLEN IH M20 C10

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M20 C15

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M20 C20

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M20 C30

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M20 C40

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

> ITIPLEN IH M20 C50

Polypropylene homopolymer, injection moulding, with calcium carbonate filler

Itiplen IH T

PROPERTY	UNIT	STANDARD	ITIPLen IH M10 T10	ITIPLen IH M10 T15	ITIPLen IH M10 T20	ITIPLen IH M10 T30	ITIPLen IH M10 T40
Density (23°C)	g/cm ³	ASTM D 792 ISO 1183	0,96	1,00	1,04	1,12	1,21
MFI	g/10 min	ASTM D 1238 ISO 1133	10	10	10	10	10
MFI condition	°C/kg	ASTM D 1238 ISO 1133	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240 ISO 868	-	-	-	-	-
Shore condition	A/D	ASTM D 2240 ISO 868	-	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570 ISO 62	-	-	-	-	-
Water absorption (saturation)	%	ASTM D 570 ISO 62	-	-	-	-	-
Filler content (calcium carbonate)	%	ASTM D 2584 ISO 3451	10	15	20	30	40
Mould Shrinkage (parallel)	%	ASTM D 955 ISO 294-4	-	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256 ISO 180/1A	30	30	30	30	30
Izod impact (notch / 0°C)	J/m	ASTM D 256 ISO 180/1A	-	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638 ISO 527-2	-	-	-	-	-
Tensile yield strain	%	ASTM D 638 ISO 527-2	-	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638 ISO 527-2	-	-	-	-	-
Elongation at break	%	ASTM D 638 ISO 527-2	-	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638 ISO 527-2	-	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790 ISO 178	1600	1900	2200	2800	3300
HDT (0,455 Mpa)	°C	ASTM D 648 ISO 75-2	-	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648 ISO 75-2	-	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525 ISO 306	-	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525 ISO 306	85	87	90	94	96
Melting temperature (DSC)	°C	ASTM D 3418 ISO 3146	165	165	165	165	165
Flame behaviour	-	UL94	-	-	-	-	-

Itiplen IH T Polypropylene Homopolymer

> ITIPLen IH M10 T10

Polypropylene homopolymer, injection moulding, with calcium talc filler

> ITIPLen IH M10 T15

Polypropylene homopolymer, injection moulding, with calcium talc filler

> ITIPLen IH M10 T20

Polypropylene homopolymer, injection moulding, with calcium talc filler

> ITIPLen IH M10 T30

Polypropylene homopolymer, injection moulding, with calcium talc filler

> ITIPLen IH M10 T40

Polypropylene homopolymer, injection moulding, with calcium talc filler

Itiplen IH T

PROPERTY	UNIT	STANDARD		ITIPLEN IH M15 T10	ITIPLEN IH M15 T15	ITIPLEN IH M15 T20	ITIPLEN IH M15 T30	ITIPLEN IH M15 T40
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,96	1,00	1,04	1,12	1,21
MFI	g/10 min	ASTM D 1238	ISO 1133	15	15	15	15	15
MFI condition	°C/kg	ASTM D 1238	ISO 1133	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-	-	-
Filler content (calcium carbonate)	%	ASTM D 2584	ISO 3451	10	15	20	30	40
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	30	30	30	30	30
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	1600	1900	2200	2800	3300
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	85	87	90	94	96
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	165	165	165	165	165
Flame behaviour	-	UL94		-	-	-	-	-

Itiplen IH T Polypropylene Homopolymer

> ITIPLEN IH M15 T10

Polypropylene homopolymer, injection moulding, with calcium talc filler

> ITIPLEN IH M15 T15

Polypropylene homopolymer, injection moulding, with calcium talc filler

> ITIPLEN IH M15 T20

Polypropylene homopolymer, injection moulding, with calcium talc filler

> ITIPLEN IH M15 T30

Polypropylene homopolymer, injection moulding, with calcium talc filler

> ITIPLEN IH M15 T40

Polypropylene homopolymer, injection moulding, with calcium talc filler

Itiplen IH T

PROPERTY	UNIT	STANDARD	ITIPLEN IH M20 T10	ITIPLEN IH M20 T15	ITIPLEN IH M20 T20	ITIPLEN IH M20 T30	ITIPLEN IH M20 T40
Density (23°C)	g/cm ³	ASTM D 792 ISO 1183	0,96	1,00	1,04	1,12	1,21
MFI	g/10 min	ASTM D 1238 ISO 1133	20	20	20	20	20
MFI condition	°C/kg	ASTM D 1238 ISO 1133	230/2,16	230/2,16	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240 ISO 868	-	-	-	-	-
Shore condition	A/D	ASTM D 2240 ISO 868	-	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570 ISO 62	-	-	-	-	-
Water absorption (saturation)	%	ASTM D 570 ISO 62	-	-	-	-	-
Filler content (calcium carbonate)	%	ASTM D 2584 ISO 3451	10	15	20	30	40
Mould Shrinkage (parallel)	%	ASTM D 955 ISO 294-4	-	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256 ISO 180/1A	30	30	30	30	30
Izod impact (notch / 0°C)	J/m	ASTM D 256 ISO 180/1A	-	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638 ISO 527-2	-	-	-	-	-
Tensile yield strain	%	ASTM D 638 ISO 527-2	-	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638 ISO 527-2	-	-	-	-	-
Elongation at break	%	ASTM D 638 ISO 527-2	-	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638 ISO 527-2	-	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790 ISO 178	1600	1900	2200	2800	3300
HDT (0,455 Mpa)	°C	ASTM D 648 ISO 75-2	-	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648 ISO 75-2	-	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525 ISO 306	-	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525 ISO 306	85	87	90	94	96
Melting temperature (DSC)	°C	ASTM D 3418 ISO 3146	165	165	165	165	165
Flame behaviour	-	UL94	-	-	-	-	-

Itiplen IH T Polypropylene Homopolymer

> ITIPLEN IH M20 T10

Polypropylene homopolymer, injection moulding, with calcium talc filler

> ITIPLEN IH M20 T15

Polypropylene homopolymer, injection moulding, with calcium talc filler

> ITIPLEN IH M20 T20

Polypropylene homopolymer, injection moulding, with calcium talc filler

> ITIPLEN IH M20 T30

Polypropylene homopolymer, injection moulding, with calcium talc filler

> ITIPLEN IH M20 T40

Polypropylene homopolymer, injection moulding, with calcium talc filler

Itiplen IH BK

PROPERTY	UNIT	STANDARD		ITIPLEN IH M15 C10	ITIPLEN IH M15 C15	ITIPLEN IH M15 C20	ITIPLEN IH M15 C30
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,93	0,93	0,93	0,93
MFI	g/10 min	ASTM D 1238	ISO 1133	5	10	20	30
MFI condition	°C/kg	ASTM D 1238	ISO 1133	230/2,16	230/2,16	230/2,16	230/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-	-
Filler content	%	ASTM D 2584	ISO 3451	-	-	-	-
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	50-80	50-80	50-80	50-80
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	1100	1100	1200	1200
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	80	80	85	85
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	165	165	165	165
Flame behaviour	-	UL94		-	-	-	-

Itiplen IH BK Polypropylene Homopolymer

> ITIPLEN IH M15 C10

Polypropylene homopolymer,
injection moulding, black

> ITIPLEN IH M15 C15

Polypropylene homopolymer,
injection moulding, black

> ITIPLEN IH M15 C20

Polypropylene homopolymer,
injection moulding, black

> ITIPLEN IH M15 C30

Polypropylene homopolymer,
injection moulding, black

PROPERTY	UNIT	STANDARD		ITILEN HD F BK	ITILEN HD R BK	ITILEN HD Z BK	ITILEN HD N BK
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,94 - 0,96	0,94 - 0,96	0,94 - 0,96	0,94 - 0,96
MFI	g/10 min	ASTM D 1238	ISO 1133	0,6-2,0	0,6-2,0	5 - 10	5 - 10
MFI condition	°C/kg	ASTM D 1238	ISO 1133	190/2,16	190/2,16	190/2,16	190/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-	-
Filler content	%	ASTM D 2584	ISO 3451	-	-	-	-
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-	-
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	-	-	-	-
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	-	-	-	-
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	130 - 135	130 - 135	130 - 135	130 - 135
Flame behaviour	-	UL94		-	-	-	-



> **ITILEN HD F BK**
High-density polyethylene (PEHD), film extrusion

> **ITILEN HD R BK**
High-density polyethylene (PEHD), pipe extrusion

> **ITILEN HD Z BK**
High-density polyethylene (PEHD), special purpose

> **ITILEN HD N BK**
High-density polyethylene (PEHD), injection moulding

PROPERTY	UNIT	STANDARD		ITILEN LD F BK	ITILEN LD R BK	ITILEN LD N BK
Density (23°C)	g/cm ³	ASTM D 792	ISO 1183	0,92 - 0,94	0,92 - 0,94	0,92 - 0,94
MFI	g/10 min	ASTM D 1238	ISO 1133	1,0-2,0	0,4-1,0	2,0-4,0
MFI condition	°C/kg	ASTM D 1238	ISO 1133	190/2,16	190/2,16	190/2,16
Shore	-	ASTM D 2240	ISO 868	-	-	-
Shore condition	A/D	ASTM D 2240	ISO 868	-	-	-
Water absorption (24h/23°C)	%	ASTM D 570	ISO 62	-	-	-
Water absorption (saturation)	%	ASTM D 570	ISO 62	-	-	-
Filler content	%	ASTM D 2584	ISO 3451	-	-	-
Mould Shrinkage (parallel)	%	ASTM D 955	ISO 294-4	-	-	-
Izod impact (notch / 23°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-
Izod impact (notch / 0°C)	J/m	ASTM D 256	ISO 180/1A	-	-	-
Tensile yield strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-
Tensile yield strain	%	ASTM D 638	ISO 527-2	-	-	-
Tensile break strenght	N/mm ²	ASTM D 638	ISO 527-2	-	-	-
Elongation at break	%	ASTM D 638	ISO 527-2	-	-	-
Tensile modulus	N/mm ²	ASTM D 638	ISO 527-2	-	-	-
Flexural modulus	N/mm ²	ASTM D 790	ISO 178	-	-	-
HDT (0,455 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-
HDT (1820 Mpa)	°C	ASTM D 648	ISO 75-2	-	-	-
VICAT (10 N)	°C	ASTM D 1525	ISO 306	-	-	-
VICAT (50 N)	°C	ASTM D 1525	ISO 306	-	-	-
Melting temperature (DSC)	°C	ASTM D 3418	ISO 3146	115 - 120	115 - 120	115 - 120
Flame behaviour	-	UL94		-	-	-