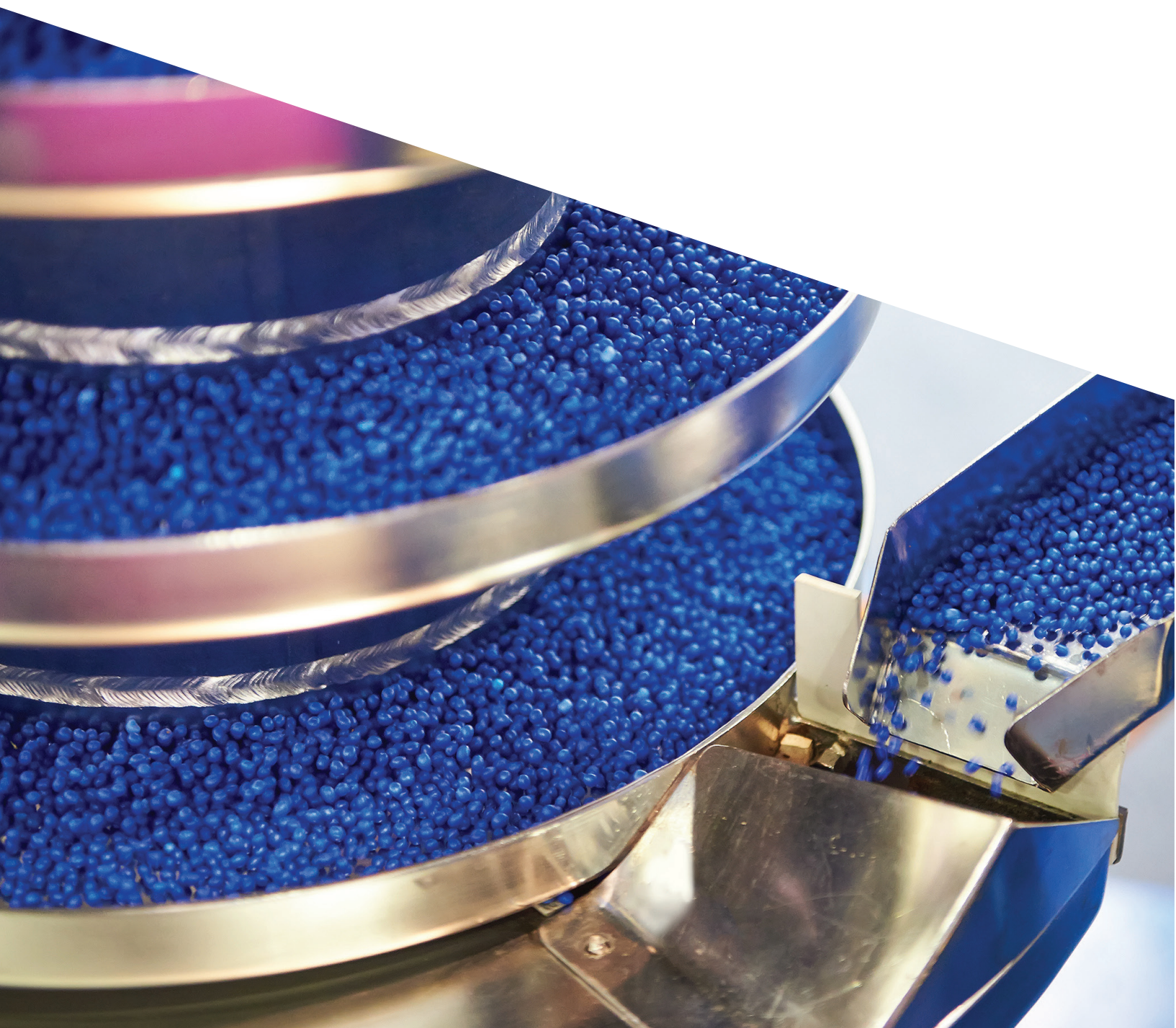




TPE Impact Modifier Series

ENSOFT[®]
TPE-S



“Don't try to be
the best, try to
work with the
best”

Raf Van Gorp
Founder



ENSOFIT®

Ravago TPE in Impact Modifier Series

Impact modifiers are used to improve impact resistance. This is generally achieved by blend of polymers, a rigid thermoplastic and an elastomer.

Impact modifiers work by absorbing impact energy and are added to a wide range of thermoplastic materials at different levels.

- Compatible with many rigid plastics (PP,HIPS,HDPE,ABS)
- Increases stiffness, elasticity and impact resistance of the polymer
- Prevents the polymer from breaking
- REACH and RoHS conformity
- FCA availability
- Improved the processing





ENSOFT® Impact Modifier Series

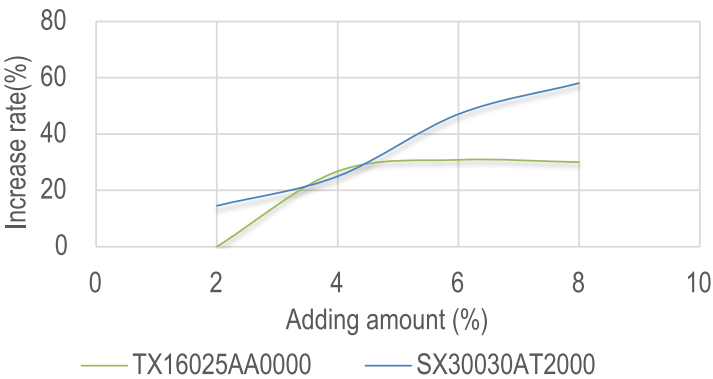
Polypropylene (PP)

Polymer	Temp.	Products	Impact Strength Values (kj/m2) versus different adding amount of TPE's				
			%0	%2	%4	%6	%8
Polypropylene (PP)	23°C	SX300 -30A-T2000FCA Izod(notched)	1,7	2,0	2,15	2,5	2,7
		TX160 -25A-A2000 Izod(notched)	1,7	1,7	2,2	2,25	2,15

*With 8 % addition of impact modifier there is an 60% increase in impact resistance. as measured to Izod ISO 180/1.

**SX30030AT2000 material is suitable where need FCA approval.

Izod Impact Strength values of PP after addition of Impact Modifier at 23°C

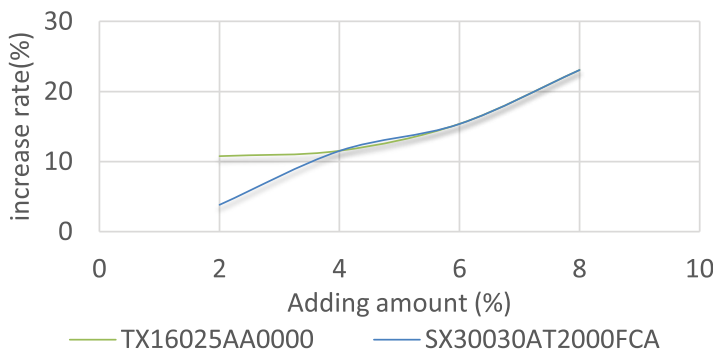


Polymer	Temp.	Products	Impact Strength Values (kj/m2) versus different adding amount of TPE's				
			%0	%2	%4	%6	%8
Polypropylene (PP)	-15°C	SX300 -30A-T2000FCA Izod(notched)	1,3	1,35	1,45	1,5	1,6
		TX160 -25A-A2000 Izod(notched)	1,3	1,44	1,45	1,5	1,6

*With 8 % addition of impact modifier there is an 25% increase in impact resistance. as measured to Izod ISO 180/1.

**SX30030AT2000 material is suitable where need FCA approval.

Izod Impact Strength values of PP after addition of Impact Modifier at 23°C





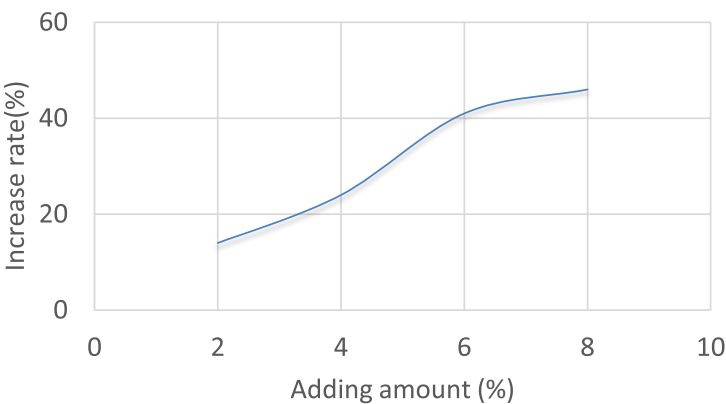
High Impact Polystyrene (HIPS)

Polymer	Temp.	Products	Impact Strength Values (kj/m2) versus different adding amount of TPE's					
			%0	%2	%4	%6	%8	
High Impact Polystyrene (HIPS)	23°C	SX216-20A-H2000	Izod(notched)	9,8	11,3	12,2	13,8	14,3
			Charpy(notched)	10,9	12,1	13,8	14,4	14,0

*With up to 8 % addition of impact modifier there is an 45% increase in impact resistance.

as measured to Charpy ISO 179 (type 1 test piece, notch A) + Izod ISO 180/1.

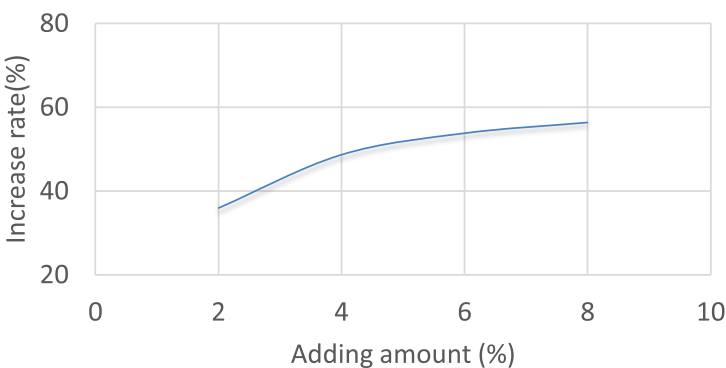
Izod Impact Strength values of PP after addition of Impact Modifier at 23°C



Polymer	Temp.	Products	Impact Strength Values (kj/m2) versus different adding amount of TPE's					
			%0	%2	%4	%6	%8	
High Impact Polystyrene (HIPS)	-15°C	SX216-20A-H2000	Izod(notched)	3,9	5,35	5,8	6	6,1
			Charpy(notched)	4,7	5,6	6,8	6,75	6,5

*With up to 8 % addition of impact modifier there is an 60% increase in impact resistance, as measured to Charpy ISO 179 (type 1 test piece, notch A) + Izod ISO 180/1.

Izod Impact Strength values of PP after addition of Impact Modifier at 23°C





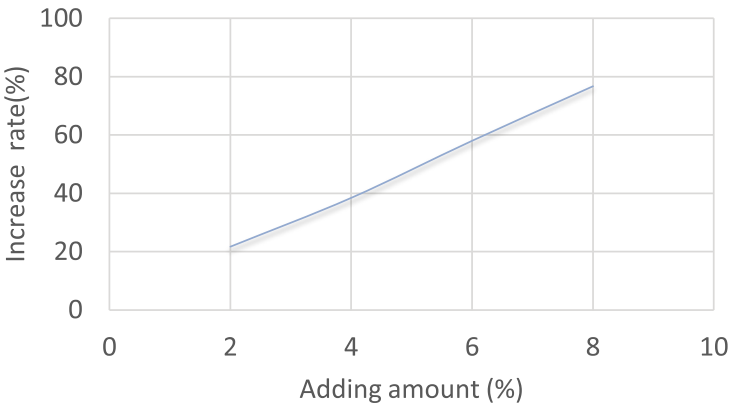
ENSOFIT[®] Impact Modifier Series

High Density Polyethylene (HDPE)

Polymer	Temp.	Products	Impact Strength Values (kj/m2) versus different adding amount of TPE's					
			%0	%2	%4	%6	%8	
High Density Polyethylene (HDPE)	23°C	SX216-20A-H2000	Izod(notched)	4,6	5,6	6,4	7,3	8,1
			Charpy(notched)	5,6	6,6	7,4	7,9	8,6

*With up to 8 % addition of impact modifier there is an 80 % increase in impact resistance. as measured to Charpy ISO 179 (type 1 test piece, notch A) + Izod ISO 180/1.

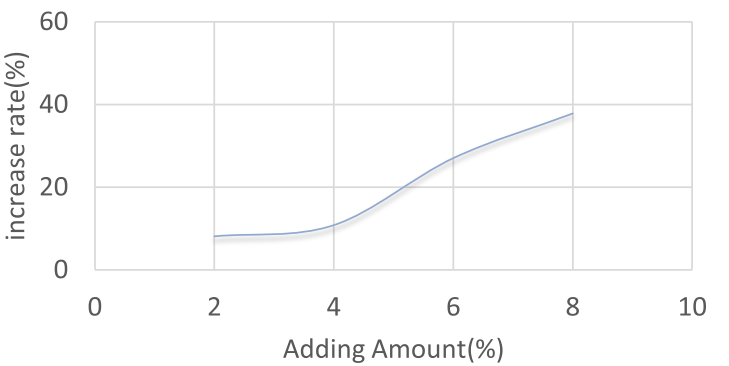
Izod Impact Strength values of PP after addition of Impact Modifier at 23°C



Polymer	Temp.	Products	Impact Strength Values (kj/m2) versus different adding amount of TPE's					
			%0	%2	%4	%6	%8	
High Density Polyethylene (HDPE)	-15°C	SX216-20A-H2000	Izod(notched)	3,7	4,0	4,1	4,7	5,1
			Charpy(notched)	4,1	4,2	4,3	5,5	5,8

*With up to 8 % addition of impact modifier there is an 40 % increase in impact resistance. as measured to Charpy ISO 179 (type 1 test piece, notch A) + Izod ISO 180/1.

Izod Impact Strength values of PP after addition of Impact Modifier at 23°C



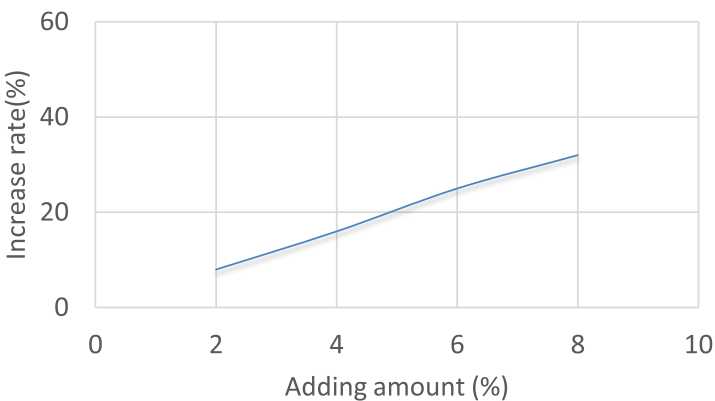


Acrylonitrile Butadiene Styrene (ABS)

Polymer	Temp.	Products	Impact Strength Values (kj/m2) versus different adding amount of TPE's					
			%0	%2	%4	%6	%8	
Acrylonitrile Butadiene Styrene (ABS)	23°C	SX210-35A-T2000	Izod(notched)	18	19,5	21,1	23,5	24
			Charpy(notched)	20	21,5	22	25	25,5

*With up to 8 % addition of impact modifier there is an 30 % increase in impact resistance. as measured to Charpy ISO 179 (type 1 test piece, notch A) + Izod ISO 180/1.

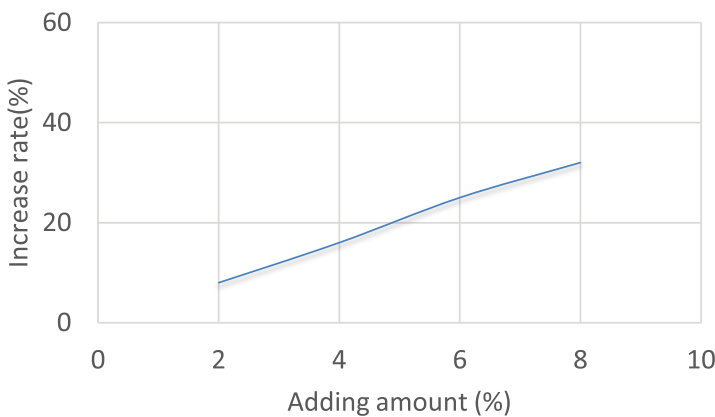
Izod Impact Strength values of PP after addition of Impact Modifier at 23°C



Polymer	Temp.	Products	Impact Strength Values (kj/m2) versus different adding amount of TPE's					
			%0	%2	%4	%6	%8	
Acrylonitrile Butadiene Styrene (ABS)	23°C	SX210-35A-T2000	Izod(notched)	13	14,5	16	17	18
			Charpy(notched)	13,5	15	16,5	17	18,2

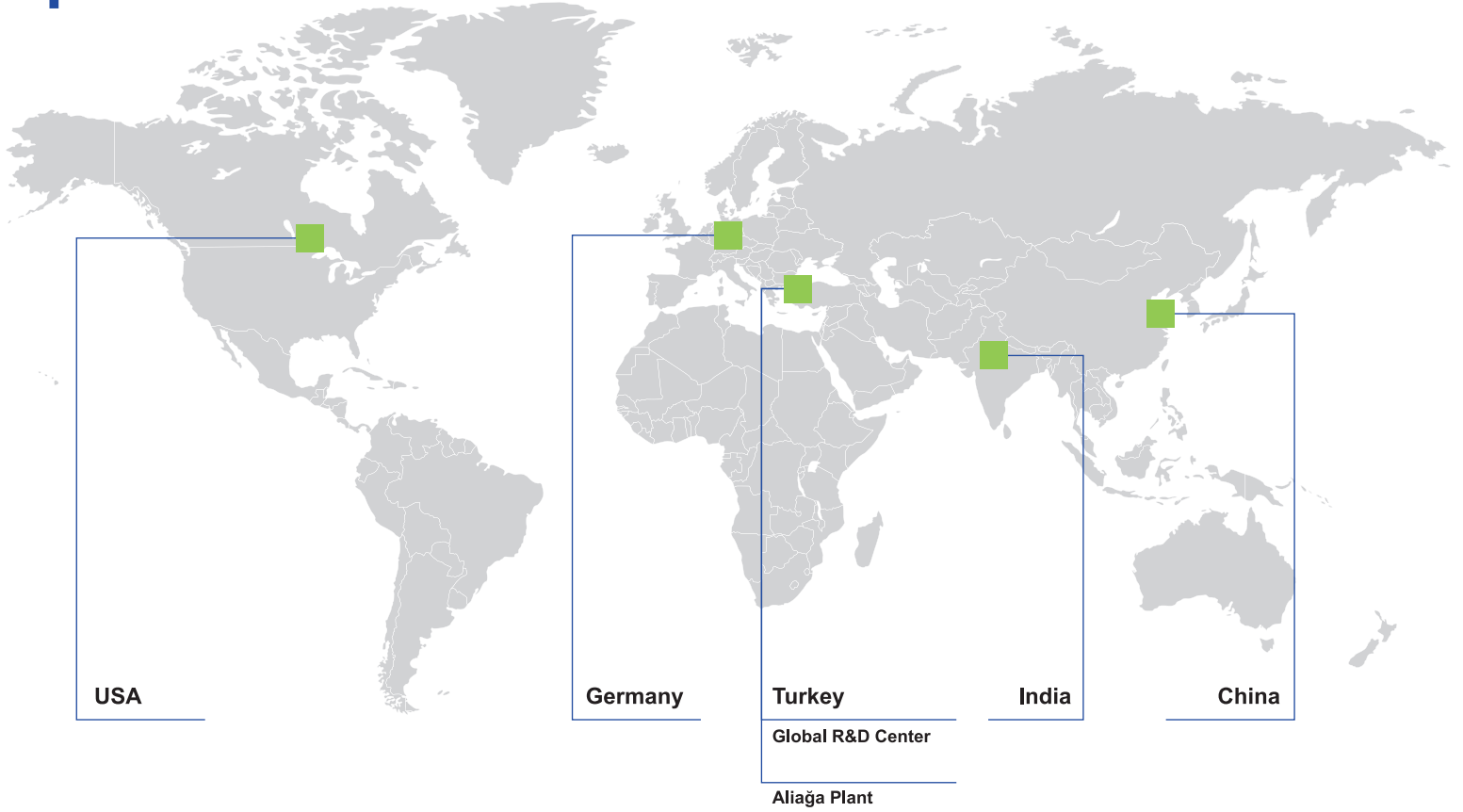
*With up to 8 % addition of impact modifier there is an 30 % increase in impact resistance. as measured to Charpy ISO 179 (type 1 test piece, notch A) + Izod ISO 180/1.

Izod Impact Strength values of PP after addition of Impact Modifier at 23°C





Manufacturing plants



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